

PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
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☐ 1: CAA70330 **dioxygenase** BLink, PubMed, Related Sequences, Nucleotide, Taxonomy  
**[Marah macrocarpus]**

LOCUS CAA70330 322 aa PLN 01-MAY-1997  
 DEFINITION dioxygenase [Marah macrocarpus].  
 ACCESSION CAA70330  
 PID g1666096  
 VERSION CAA70330.1 GI:1666096  
 DBSOURCE embl locus MMY09113, accession Y09113.1  
 KEYWORDS .  
 SOURCE Marah macrocarpus.  
 ORGANISM Marah macrocarpus  
 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;  
 euphyllphytes; Spermatophyta; Magnoliophyta; eudicotyledons;  
 Rosidae; Cucurbitales; Cucurbitaceae; Marah.

REFERENCE 1 (residues 1 to 322)  
 AUTHORS MacMillan, J., Ward, D.A., Phillips, A.L., Sanchez-Beltran, M.J.,  
 Gaskin, P., Lange, T. and Hedden, P.  
 TITLE Gibberellin biosynthesis from gibberellin A12-aldehyde in endosperm  
 and embryos of Marah macrocarpus  
 JOURNAL Plant Physiol. 113 (4), 1369-1377 (1997)  
 MEDLINE 97267151

REFERENCE 2 (residues 1 to 322)  
 AUTHORS Hedden, P.  
 TITLE Direct Submission  
 JOURNAL Submitted (31-OCT-1996) P. Hedden, University of Bristol,  
 Department of Agricultural Sciences, IACR-Long Ashton Research  
 Station, Long Ashton, Bristol, BS18 9AF, UK

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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	
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Display	Default View	as	HTML	Save	Add to Clipboard			

☐ 1: [AAD04293](#) **copalyl diphosphate synthase 2; CPS2 [Cucurbita maxima]** BLink, PubMed, Related Sequences, Nucleotide, Taxonomy

LOCUS AAD04293 827 aa PLN 13-JAN-1999  
 DEFINITION copalyl diphosphate synthase 2; CPS2 [Cucurbita maxima].  
 ACCESSION AAD04293  
 PID g4151195  
 VERSION AAD04293.1 GI:4151195  
 DBSOURCE locus AF049906 accession [AF049906.1](#)  
 KEYWORDS .  
 SOURCE winter squash.  
 ORGANISM Cucurbita maxima  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids I;  
 Cucurbitales; Cucurbitaceae; Cucurbita.

REFERENCE 1 (residues 1 to 827)  
 AUTHORS Smith,M.W., Yamaguchi,S., Ait-Ali,T. and Kamiya,Y.  
 TITLE The first step of gibberellin biosynthesis in pumpkin is catalyzed by at least two copalyl diphosphate synthases encoded by differentially regulated genes  
 JOURNAL Plant Physiol. 118 (4), 1411-1419 (1998)  
 MEDLINE 99063778

REFERENCE 2 (residues 1 to 827)  
 AUTHORS Smith,M.W., Yamaguchi,S., Ait-Ali,T. and Kamiya,Y.  
 TITLE Direct Submission  
 JOURNAL Submitted (20-FEB-1998) Plant Hormone Function Lab, Frontier Research Program, Institute of Physical and Chemical Research (RIKEN), Hirosawa 2-1, Wako-shi 351-0198, Japan

COMMENT Method: conceptual translation supplied by author.

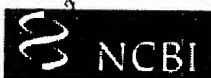
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721 llsnsqfqkl snltkvchq lahfkhhkvn ngnykektk nkmppeieed irklvqlviq  
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Restrictions on Use | Write to the HelpDesk  
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
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☐ 1: T02959 **kaurene synthase A - maize** BLink, PubMed, Related Sequences, Taxonomy

LOCUS T02959 823 aa PLN 29-OCT-1999  
 DEFINITION kaurene synthase A - maize.  
 ACCESSION T02959  
 PID g7489781  
 VERSION T02959 GI:7489781  
 DBSOURCE pir: locus T02959;  
 summary: #length 823 #molecular-weight 95122 #checksum 392;  
 genetic: #gene AN1;  
 PIR dates: 24-Mar-1999 #sequence\_revision 24-Mar-1999 #text\_change 29-Oct-1999.

## KEYWORDS

## SOURCE

Zea mays.

## ORGANISM

Zea mays

Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Zea.

## REFERENCE

## AUTHORS

Bensen, R.J., Johal, G.S., Crane, V.C., Tossberg, J.T., Schnable, P.S., Meeley, R.B. and Briggs, S.P.

## TITLE

Cloning and characterization of the maize An1 gene

## JOURNAL

Plant Cell 7 (1), 75-84 (1995)

## MEDLINE

95210929

## FEATURES

## source

Location/Qualifiers

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## ORIGIN

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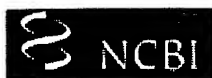
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601 rdisedkkrl ecfvhclyee ndvswlkrnp ndvileralr rlinllagea lpihegqrfr
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search		Protein	for				
Limits		Index	History	Clipboard			
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: AAB87091 **copalyl pyrophosphate synthase [Stevia rebaudiana]** BLink, PubMed, Related Sequences, Nucleotide, Taxonomy

LOCUS AAB87091 787 aa PLN 22-MAR-2000  
 DEFINITION copalyl pyrophosphate synthase [Stevia rebaudiana].  
 ACCESSION AAB87091  
 PID g2642661  
 VERSION AAB87091.1 GI:2642661  
 DBSOURCE locus AF034545 accession AF034545.1  
 KEYWORDS .  
 SOURCE Stevia rebaudiana.  
 ORGANISM Stevia rebaudiana  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; core eudicots; Asteridae; euasterids  
 II; Asterales; Asteraceae; Asteroideae; Heliantheae; Stevia.

REFERENCE 1 (residues 1 to 787)  
 AUTHORS Richman,A.S., Gijzen,M., Starratt,A.N., Yang,Z. and Brandle,J.E.  
 TITLE Diterpene synthesis in Stevia rebaudiana: recruitment and  
 up-regulation of key enzymes from the gibberellin biosynthetic  
 pathway  
 JOURNAL Plant J. 19 (4), 411-421 (1999)  
 MEDLINE 99435880  
 PUBMED 10504563

REFERENCE 2 (residues 1 to 787)  
 AUTHORS Richman,A.S., Gijzen,M. and Brandle,J.E.  
 TITLE Direct Submission  
 JOURNAL Submitted (13-NOV-1997) Research Branch, Agriculture and Agri-Food  
 Canada, 1391 Sandford St., London, ON N5V 4T3, Canada

COMMENT Method: conceptual translation supplied by author.

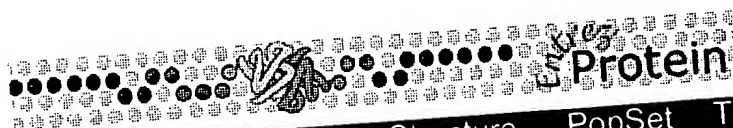
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541 qwyvdigiek fesdniksvl vsyylaaasi feperskeri awaktilvd kitsifdssq  
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661 qawemwltkl qdgvdtael mvqminmtag rwvskellth pqyqrlstvt nsvchditkl  
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PubMed Nucleotide Protein Genome Structure PopSet Taxonomy OMIM

Search Protein [v] for [v] Limits Index History Clipboard

Display Default View [v] as HTML [v] Save Add to Clipboard

BLink, PubMed, Related Sequences, Nucleotide, Taxonomy

☐ 1: AAB39482 ent-kaurene  
synthase B  
[Cucurbita  
maxima]

PLN

30-DEC-1996

LOCUS AAB39482 789 aa  
DEFINITION ent-kaurene synthase B.  
ACCESSION AAB39482  
PID g1431870  
VERSION AAB39482.1 GI:1431870  
DBSOURCE locus CMU43904 accession U43904.1

KEYWORDS winter squash.  
SOURCE Cucurbita maxima

ORGANISM

REFERENCE  
AUTHORS

TITLE

JOURNAL  
MEDLINEREFERENCE  
AUTHORS

TITLE

JOURNAL

FEATURES

source

Protein

CDS

ORIGIN

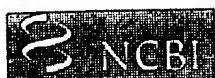
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search: Protein [v] for [ ] [Go] [Clear]							
Limits Index History Clipboard							
Display	Default View	[v] as HTML	[v] Save	Add to Clipboard			

☐ 1: AAB58822 **ent-kaurene synthase A** [Pisum sativum] BLink, PubMed, Related Sequences, Nucleotide, Taxonomy

LOCUS AAB58822 801 aa PLN 05-JUN-1997  
 DEFINITION ent-kaurene synthase A [Pisum sativum].  
 ACCESSION AAB58822  
 PID g2160544  
 VERSION AAB58822.1 GI:2160544  
 DBSOURCE locus PSU63652 accession U63652.1  
 KEYWORDS .  
 SOURCE pea.  
 ORGANISM Pisum sativum  
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 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids I;  
 Fabales; Fabaceae; Papilionoideae; Pisum.

REFERENCE 1 (residues 1 to 801)  
 AUTHORS Ait-Ali,T., Swain,S.M., Reid,J.B., Sun,T.-p. and Kamiya,Y.  
 TITLE The LS locus of pea encodes the gibberellin biosynthesis enzyme  
 ent-kaurene synthase A  
 JOURNAL Plant J. 11 (3), 443-454 (1997)  
 MEDLINE 97260958

REFERENCE 2 (residues 1 to 801)  
 AUTHORS Ait-Ali,T., Swain,S.M., Reid,J.B., Sun,T.-p. and Kamiya,Y.  
 TITLE Direct Submission  
 JOURNAL Submitted (12-JUL-1996) Plant Hormone Function, RIKEN Institute,  
 Hirosawa 2-1, Wako-shi, Saitama 351-01, Japan

COMMENT Method: conceptual translation.

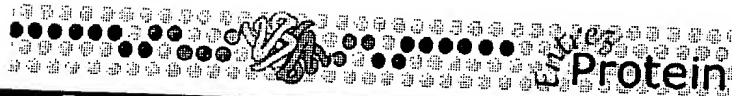
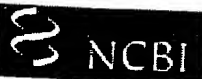
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 121 dvnaistpqf psslewiakn qlqdgswgds rlfsahdrii ntlacvialr swnmhsekcd  
 181 kgmiffrenl skleneneeh mpigfevafp sllegargik plmcpndspi lknifekrde  
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//

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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search	Protein	for					
Limits	Index	History	Clipboard				
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: CAA03884 GTP cyclohydrolase II /

BLink, Related Sequences, Nucleotide,

3,4-dihydroxy-2-butanone-4-phosphate  
synthase [Arabidopsis thaliana]

LOCUS CAA03884 543 aa PLN 02-OCT-1997  
 DEFINITION GTP cyclohydrolase II / 3,4-dihydroxy-2-butanone-4-phosphate  
 synthase [Arabidopsis thaliana].  
 ACCESSION CAA03884  
 PID g2462925  
 VERSION CAA03884.1 GI:2462925  
 DBSOURCE embl locus ATAJ0053, accession AJ000053.1  
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 ORGANISM Arabidopsis thaliana  
 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;  
 euphyllophytes; Spermatophyta; Magnoliophyta; eudicotyledons;  
 Rosidae; Capparales; Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 543)  
 AUTHORS Herz, S.W.  
 TITLE Direct Submission  
 JOURNAL Submitted (31-JUL-1997) Herz S.W., Institut fuer Org. Chemie und  
 Biochemie, TU Muenchen, Lichtenbergstr. 4, 85747 Garching, FRG  
 REFERENCE 2 (residues 1 to 543)  
 AUTHORS Herz, S.W., Eberhardt, S. and Bacher, A.  
 TITLE Biosynthesis of riboflavin in plants. The ribA gene of Arabidopsis  
 thaliana specifies a bifunctional GTP cyclohydrolase II/  
 3,4-dihydroxy-2butanone-4-phosphate synthase  
 JOURNAL Unpublished  
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 AJ000053.1:2383..2616)"  
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 301 rlpklrefaa ennlkvvsia dliryrkrkd klverasaar iptmwgpfta ycyrsildgi  
 361 ehiamvkgei gdgqdlrvv hsecltgdlf gsarcdgnq lalsmqiea tgrgvlylr  
 421 ghegrgiglg hklraynlqd agrdtveane elglpvsre ygigaqiird lgvrtmklmt  
 481 nnpakyvglk gyglaiivgrv plslitken kryletkrk mghmyglkfk gdvvekie  
 541 ses

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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search		Protein	for			Go	Clear
Limits		Index		History		Clipboard	
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: AAC39443 ent-kaurene synthase [Arabidopsis thaliana] BLink, PubMed, Related Sequences, Nucleotide, Taxonomy

LOCUS AAC39443 785 aa PLN 17-APR-1998  
 DEFINITION ent-kaurene synthase [Arabidopsis thaliana].  
 ACCESSION AAC39443  
 PID g3056725  
 VERSION AAC39443.1 GI:3056725  
 DBSOURCE locus AF034774 accession AF034774.1  
 KEYWORDS .  
 SOURCE thale cress.  
 ORGANISM Arabidopsis thaliana  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;  
 Brassicales; Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 785)  
 AUTHORS Yamaguchi, S., Sun, T., Kawaide, H. and Kamiya, Y.  
 TITLE The GA2 locus of Arabidopsis thaliana encodes ent-kaurene synthase  
 of gibberellin biosynthesis  
 JOURNAL Plant Physiol. 116 (4), 1271-1278 (1998)  
 MEDLINE 98205064  
 REFERENCE 2 (residues 1 to 785)  
 AUTHORS Yamaguchi, S., Sun, T.-P., Kawaide, H. and Kamiya, Y.  
 TITLE Direct Submission  
 JOURNAL Submitted (14-NOV-1997) Botany, Duke University, Research Dr.,  
 Durham, NC 27708, USA  
 COMMENT Method: conceptual translation supplied by author.  
 FEATURES Location/Qualifiers  
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 /db\_xref="taxon:3702"  
 /chromosome="1"  
 Protein 1..785  
 /function="terpene cyclase"  
 /product="ent-kaurene synthase"  
 CDS 1..785  
 /gene="GA2"  
 /coded\_by="AF034774.1:68..2425"

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 1 msinlrssgc sspisatler gldsevqtra nnvsfeqtke kirkmlekve lsvsaydtsw  
 61 vamvpsspssq naplfpqcvk wlldnqheda swgldnhdhq slkkdvlst lasilalkkw  
 121 gigerqinkg lqfielnsal vtdetiqtpt gfdiifpgmi kyardlnlti plgsevvddm  
 181 irkrldldlc dsekfskgre aylayvlegt rnlkdwdliv kyqrkngslf dspattaaaf  
 241 tqfgndgclr ylcsllqkfe aavpsvypfd qyarlsiivt leslgidrdf kteiksilde  
 301 tyrywlrge eicldlatca lafrlllahg ydvsydpkp faesgfsdt legyvknfts  
 361 vlelfkaaqs yphesalkkq ccwtkqylem elsswvktsv rdkylkkeve dalafpsyas  
 421 lersdhrarki lngsaventr vtktysrlhn ictsdilkla vddfnfcqsi hreemerldr  
 481 wivenrlqel kfarqklayc yfsgaatlfs pelsdarisw akggvlttvv ddfdvvggsk  
 541 eelenlihlv ekwdlngvpe yssehveiif svlrtdilet gdkaftyqgr nvthhivkiw  
 601 ldllksmlre aewssdkstp sledymenay isfalgpivl patyligppl pektvdshqy  
 661 nqglyklvstm grllndiqgf kresaegkln avslhmkher dnrskeviie smkglaerkr  
 721 eelhlkvlvee kgsvvpreck eafikmskvl nlfyrkddgf tsndlmslvk sviyepvslq



781 keslt

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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search	Protein	for		Go	Clear		
Limits		Index		History		Clipboard	
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: [AAC31213](#) **ethylene receptor homolog** BLink, Related Sequences, Nucleotide, Taxonomy  
[*Nicotiana tabacum*]

LOCUS AAC31213 762 aa PLN 16-AUG-1999  
 DEFINITION ethylene receptor homolog [*Nicotiana tabacum*].  
 ACCESSION AAC31213  
 PID g5733831  
 VERSION AAC31213.3 GI:5733831  
 DBSOURCE locus AF026267 accession [AF026267.3](#)  
 KEYWORDS .  
 SOURCE common tobacco.  
 ORGANISM *Nicotiana tabacum*  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; core eudicots; Asteridae; euasterids  
 I; Solanales; Solanaceae; *Nicotiana*.  
 REFERENCE 1 (residues 1 to 762)  
 AUTHORS Zhang, J.-S. and Chen, S.-Y.  
 TITLE Direct Submission  
 JOURNAL Submitted (16-AUG-1999) 803 Lab, Institute of Genetics, Academia  
 Sinica, Beijing 100101, PRC  
 REMARK Sequence update by submitter  
 COMMENT On Aug 16, 1999 this sequence version replaced gi:[4982466](#).  
 Method: conceptual translation.  
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     CDS 1..762  
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             /coded\_by="AF026267.3:247..2535"

## ORIGIN

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121 vsfataitli tlfpmllkik vrefmlkkkt wdlgrevgli kqqkeagwhv rmltqeirks
181 ldrhtilytt lvelaktldl hncaiwpne nktemnlihe lkgrsfssmy nlpiptsdpd
241 vreikesdgv klldayspla aassggssep gavaaairmpm lkvsnfkggt pelvpeyai
301 lylvlpgeqg rswsnqeiei vrvvadqvav alshaavlee sqhmretlee qnralqqakq
361 dalrasqarn afqmvmsghl rrpmsilgl lsllqddnmg ieqrllvdam aktssvvstl
421 indvmdtstk dnsrfplemr hfqlhsmike aacalaklca hrgynisiev dkslpnyvmg
481 derrvfqvil hmvgnllkdp nggcltfrvl pesarregid gawktrrshs slenvyirfe
541 vgssnnhsqp egitstlphc cetrssreve erlsfsvcrk lvqlmqgdiw vvpnpegfdq
601 smtvilgflq rpsiavgipe ygessdhshp hsllqgvnvl ladyddvnra vtrkllek1g
661 ctvsavssgh dclgalgpav ssfqivlldl hlpdldgfev tmrيرهfrsr nwplivgfas
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Search Protein		for			Go	Clear	
Limits		Index	History	Clipboard			
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: **AAC13635 F6N23.3 gene product** BLink, Related Sequences, Nucleotide, Taxonomy  
**[Arabidopsis thaliana]**

LOCUS AAC13635 213 aa PLN 12-NOV-1999  
 DEFINITION F6N23.3 gene product [Arabidopsis thaliana].  
 ACCESSION AAC13635  
 PID g3047124  
 VERSION AAC13635.1 GI:3047124  
 DBSOURCE locus F6N23 accession [AF058919.2](#)  
 KEYWORDS .  
 SOURCE thale cress.  
 ORGANISM Arabidopsis thaliana  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;  
 Brassicales; Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 213)  
 AUTHORS Geisel,C.  
 TITLE The sequence of A. thaliana F6N23  
 JOURNAL Unpublished  
 REFERENCE 2 (residues 1 to 213)  
 AUTHORS Washington University Genome Sequencing Center.  
 TITLE The A. thaliana Genome Sequencing Project  
 JOURNAL Unpublished  
 REFERENCE 3 (residues 1 to 213)  
 AUTHORS Waterston,R.  
 TITLE Direct Submission  
 JOURNAL Submitted (10-APR-1998) Department of Genetics, Washington  
 University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, USA  
 REFERENCE 4 (residues 1 to 213)  
 AUTHORS Waterston,R.  
 TITLE Direct Submission  
 JOURNAL Submitted (12-NOV-1999) Department of Genetics, Washington  
 University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, USA  
 COMMENT Method: conceptual translation.  
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 1 meiysnhcdt tvyasqalaa asktvetmki vhnfhcyfll vgdinipiiy dvnrlrdgnn  
 61 fatrsvdarq kgktiftlfa sfqvsyipe ifhyesldyr nqvateisvp fpidirfcep  
 121 nrstkqnksp prcvvafasd lifatislnp hrregmsvaa lsldhsmwfh rpvraddwll  
 181 fvivspstate srgfatgkmf nrkgevrcii eee



PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	
Search	Protein	for					Go	Clear
Limits		Index	History	Clipboard				
Display	Default View	as	HTML	Save	Add to Clipboard			

☐ 1: AAD31397 **ethylene receptor homolog [Lycopersicon esculentum]** BLINK, PubMed, Related Sequences, Nucleotide, Taxonomy

LOCUS AF118844\_1 767 aa PLN 20-MAY-1999  
 DEFINITION ethylene receptor homolog [Lycopersicon esculentum].  
 ACCESSION AAD31397  
 PID g4877653  
 VERSION AAD31397.1 GI:4877653  
 DBSOURCE locus AF118844 accession AF118844.1  
 KEYWORDS .  
 SOURCE tomato.  
 ORGANISM Lycopersicon esculentum  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Asteridae; euasterids I; Solanales; Solanaceae; Solanum; Lycopersicon.  
 REFERENCE 1 (residues 1 to 767)  
 AUTHORS Tieman, D.M. and Klee, H.J.  
 TITLE Differential expression of two novel members of the tomato ethylene-receptor family  
 JOURNAL Plant Physiol. 120 (1), 165-172 (1999)  
 MEDLINE 99252262  
 REFERENCE 2 (residues 1 to 767)  
 AUTHORS Tieman, D.M. and Klee, H.J.  
 TITLE Direct Submission  
 JOURNAL Submitted (08-JAN-1999) Horticultural Sciences, University of Florida, P.O. Box 110690, Gainesville, FL 32611, USA  
 COMMENT Method: conceptual translation supplied by author.  
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 Location/Qualifiers  
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 /strain="Rutgers"  
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 /name="similar to Arabidopsis thaliana ETR1"  
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## ORIGIN

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181  ksldkhtily  ttlvelsktl  klqncavwmp  nesrsqmnlt  helpssaae  shrslsindp
241  dvleitknkg  vrilrqdsvl  aasssggsge  pcavaairmp  llrasdfkkg  tpelvdtrya
301  ilvlvlssvd  ervwsydeme  ivevvadqva  valshatvle  esqtmrekle  mnrnvlqqaq
361  enamkasqar  tsfqkvmnng  mrrpmsilg  llsifqdeka  ssdgrmivdt  mvktstvlst
421  lindameisa  kddgrfpvem  kpqqlhllvr  easclvklc  vykgfgfst  vptslpnqvm
481  gdekrtfqvl  lhmvgllnv  sigkgsivfr  vvletgaetg  ndkvwgtrrp  sttdeyvtik
541  feievslegs  qsdssistih  fgrrhnske  vteglsfmnc  kklvqmmqgn  iwmssnaqgh
601  aqgmtlilrf  qkqssfrkrm  feyrnpleqp  isstmfrglh  vlltddddvn  rlvtrkllek

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661 lgcqvtavst gfcclsalgp slttfqvlil dlqmpemdgy evalrvrkfr srswpliial  
721 tasseeqvwe kclqvgnngl irkpvlqgl adelqrllqr ggggdgl

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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search	Protein	for					Go
Limits		Index	History		Clipboard		
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**1: AAD26899 ethylene receptor homolog BLink, Related Sequences, Nucleotide, Taxonomy [Phalaenopsis sp. 'True Lady']**

LOCUS AAD26899 633 aa PLN 17-JUN-1999  
 DEFINITION ethylene receptor homolog [Phalaenopsis sp. 'True Lady'].  
 ACCESSION AAD26899  
 PID g4650821  
 VERSION AAD26899.1 GI:4650821  
 DBSOURCE locus AF055894 accession AF055894.1  
 KEYWORDS .  
 SOURCE Phalaenopsis sp. 'True Lady'.  
 ORGANISM Phalaenopsis sp. 'True Lady'  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; Liliopsida; Asparagales; Orchidaceae; Phalaenopsis.  
 REFERENCE 1 (residues 1 to 633)  
 AUTHORS Do, Y.Y., Chen, Y.C. and Huang, P.L.  
 TITLE Molecular Analysis of a cDNA Encoding Ethylene Receptor That  
 Expresses in Phalaenopsis Petals (Accession Number AF055894)  
 (PGR99-047)  
 JOURNAL Plant Physiol. 119 (4), 1567 (1999)  
 REFERENCE 2 (residues 1 to 633)  
 AUTHORS Huang, P.  
 TITLE Direct Submission  
 JOURNAL Submitted (25-MAR-1998) Horticulture, National Taiwan University,  
 No.1, Section 4, Roosevelt Rd, Taipei, Taiwan 10617, Republic of  
 China  
 COMMENT Method: conceptual translation.  
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 121 flrnkaeeld kemglirtqe etgrhvrmlt heirstldrh tilrttlvel grtldlaeca  
 181 lwmpsrtgln lqlshtlnnq ipvgsvvsin lpvvnqvfn sravrphtc qlarfqphtg  
 241 ryvppevvav rvpllhlsnf qindwpelsa knfavmvlml psdsarkwhv yelelvevva  
 301 dqvavalsha aileesmrar dqlmdqnval dlarreaema irarndflav mnhemrtpmh  
 361 aialsslll eteltpeqrl mvetilkssn llatlindvl dlskledgsf elevtvfnlh  
 421 tvfrevvnli kpiaavkklv livslspdlp scavgdekrl mqtmlnvvgv avkftkegsi  
 481 sitasiakpd slrdprdpf ypipsgdhfy lrvqikdtgc gispqelphl ftkfahagng  
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 601 ppiraggsea dafgskrtpt dliplknryq rsl

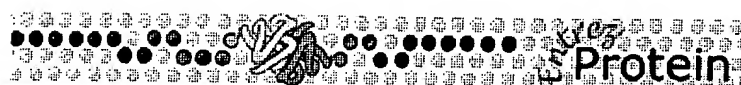
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Limits		Index		History		Clipboard	
Display		Default View		as HTML		Save Add to Clipboard	

☐ 1: **BAA37129** **gibberelin** BLink, PubMed, Related Sequences, Nucleotide, Taxonom  
**3beta-hydroxylase**  
**[Lactuca sativa]**

LOCUS BAA37129 363 aa PLN 05-FEB-1999  
 DEFINITION gibberelin 3beta-hydroxylase [Lactuca sativa].  
 ACCESSION BAA37129  
 PID g4164145  
 VERSION BAA37129.1 GI:4164145  
 DBSOURCE locus AB012205 accession AB012205.1  
 KEYWORDS .  
 SOURCE Lactuca sativa.  
 ORGANISM Lactuca sativa  
 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;  
 euphyllphytes; Spermatophyta; Magnoliophyta; eudicotyledons;  
 Asteridae; Asterales; Asteraceae; Lactuca.  
 REFERENCE 1 (residues 1 to 363)  
 AUTHORS Toyomasu, T.  
 TITLE Direct Submission  
 JOURNAL Submitted (16-MAR-1998) Tomonobu Toyomasu, Yamagata University,  
 Faculty of Agriculture; Wakaba-cho 1-23, Tsuruoka, Yamagata  
 997-8555, Japan (E-mail:toyomasu@tds1.tr.yamagata-u.ac.jp,  
 Tel:81-0235-28-2861, Fax:81-0235-28-2812)  
 REFERENCE 2 (sites)  
 AUTHORS Toyomasu, T., Kawaide, H., Mitsuhashi, W., Inoue, Y. and Kamiya, Y.  
 TITLE Phytochrome regulates gibberellin biosynthesis during germination  
 of photoblastic lettuce seeds  
 JOURNAL Plant Physiol. 118 (4), 1517-1523 (1998)  
 MEDLINE 99063790  
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 /product="gibberelin 3beta-hydroxylase"  
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 /gene="Ls3h1"  
 /coded\_by="AB012205.1:35..1126"  
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 121 arissffpkl mwsegftiig spyeharklw pnrysrfdv iegykhemnn laqrlmwlm  
 181 gslgvttedv kwdgsqgscp alqlnsypac pdpdrangla ahtdstllti lyqnntsglq  
 241 ahregagwvt vppipgalvv nvgdllhils nglypsvlhr amvnrtqhr1 svaylygpps  
 301 nvqisplskl tdhvhpplyr pvtwseylgt kakhfnkals svrlcvplng fvdandhsqv  
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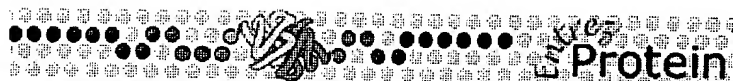
Limits Index History Clipboard

Display [ ] Default View [ ] as HTML [ ] Save [ ] Add to Clipboard [ ]

☐ 1: CAA74331 **gibberellin 20-oxidase** BLink, Related Sequences, Nucleotide, Taxonomy  
[Triticum aestivum]

LOCUS CAA74331 365 aa PLN 25-JUN-1997  
 DEFINITION gibberellin 20-oxidase [Triticum aestivum].  
 ACCESSION CAA74331  
 PID g2222798  
 VERSION CAA74331.1 GI:2222798  
 DBSOURCE embl locus TAY14008, accession Y14008.1  
 KEYWORDS .  
 SOURCE Triticum aestivum.  
 ORGANISM Triticum aestivum  
 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;  
 euphyllophytes; Spermatophyta; Magnoliophyta; Liliopsida; Poales;  
 Poaceae; Triticum.  
 REFERENCE 1 (residues 1 to 365)  
 AUTHORS Appleford, N.E.  
 TITLE Direct Submission  
 JOURNAL Submitted (24-JUN-1997) Appleford N.E., Plant Sciences, IACR-Long  
 Ashton Research Station, Dept. of Agricultural Sciences, University  
 of Bristol, Long Ashton, Bristol. BS18 9AF UK  
 REFERENCE 2 (residues 1 to 365)  
 AUTHORS Appleford, N.E.J.  
 TITLE Cloning and characterisation of cDNAs encoding gibberellin  
 20-oxidase from wheat (Triticum aestivum L.)  
 JOURNAL Unpublished  
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 /product="gibberellin 20-oxidase"  
 CDS 1..365  
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 121 grfasklpwk etlsfrscps dpalvvdv yiv atlgedhrrl gevyarycse msrlsleime  
 181 vlgeslgvgr ahyrrffegn dsimrlnyyp pcqrpmetlg tgphcdptsl tilhqdnvvg  
 241 lqvhtegrwr sirpradafv vnigdtfmal sngryksclh ravvnskvpr kslafflcpe  
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 361 plash  
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search		Protein	for			Go	Clear
Limits		Index		History		Clipboard	
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: **AAB67838 gibberellin 20-oxidase** BLink, Related Sequences, Nucleotide, Taxonomy  
**[Pisum sativum]**

LOCUS AAB67838 379 aa PLN 28-AUG-1997  
 DEFINITION gibberellin 20-oxidase [Pisum sativum].  
 ACCESSION AAB67838  
 PID g1381673  
 VERSION AAB67838.1 GI:1381673  
 DBSOURCE locus PSU58830 accession U58830.1  
 KEYWORDS .  
 SOURCE pea.  
 ORGANISM Pisum sativum  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids I;  
 Fabales; Fabaceae; Papilionoideae; Pisum.  
 REFERENCE 1 (residues 1 to 379)  
 AUTHORS Lester,D.R., Ross,J.J., Ait-Ali,T., Martin,D.N. and Reid,J.B.  
 TITLE A gibberellin 20-oxidase cDNA (Accession no. U58830) from pea seed  
 (PGR96-050)  
 JOURNAL Plant Physiol. 111, 1353 (1996)  
 REFERENCE 2 (residues 1 to 379)  
 AUTHORS Lester,D.R., Ross,J.J., Ait-Ali,T., Martin,D.N. and Reid,J.B.  
 TITLE Direct Submission  
 JOURNAL Submitted (21-MAY-1996) Plant Science, University of Tasmania,  
 Churchill Avenue, Hobart, TAS 7005, Australia  
 COMMENT Method: conceptual translation supplied by author.  
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☐ PubMed ☐ Nucleotide ☐ Protein ☐ Genome ☐ Structure ☐ PopSet ☐ Taxonomy ☐ OMIM

Search: Protein ☐ for

☐ 1: CAB45891 putative protein  
 [Arabidopsis thaliana]

BLink, Related Sequences, Nucleotide, Taxonomy

LOCUS CAB45891 363 aa PLN 24-JUN-1999  
 DEFINITION putative protein [Arabidopsis thaliana].  
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 PID g5262786  
 VERSION CAB45891.1 GI:5262786  
 DBSOURCE embl locus ATT13K14, accession AL080282.1  
 KEYWORDS .  
 SOURCE thale cress.  
 ORGANISM Arabidopsis thaliana  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; Rosidae; eurosids II; Brassicales;  
 Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 363)  
 AUTHORS Bevan, M., Pohl, T., Weizenegger, T., Bancroft, I., Mewes, H.W.,  
 Mayer, K.F.X., Lemcke, K. and Schueller, C.  
 JOURNAL Unpublished  
 REFERENCE 2 (residues 1 to 363)  
 AUTHORS EU Arabidopsis sequencing, project.  
 TITLE Direct Submission  
 JOURNAL Submitted (24-JUN-1999) MIPS, at the Max-Planck-Institut fuer  
 Biochemie, Am Klopferspitz 18a, D-82152 Martinsried, FRG, E-mail:  
 schueller@mips.biochem.mpg.de, mayer@mips.biochem.mpg.de Project  
 Coordinator: Mike Bevan, Molecular Genetics Department, Cambridge  
 Laboratory, John Innes Centre, Colney Lane, NR4 7UJ Norwich, UK,  
 E-mail: michael.bevan@bbsrc.ac.uk  
 COMMENT Information on performance of analysis and a more detailed  
 annotation of this entry and other sequences of chromosomes 3, 4  
 and 5 can be viewed at: <http://www.mips.biochem.mpg.de/proj/thal/>.  
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 121 srlkdagidv tvsveeelck kmnegfihrm ltgkpfalr ysmvngcll dkigggasds  
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361 gyf

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[NCBI](#) | [NLM](#) | [NIH](#)



PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search		Protein	for				Go Clear
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**1: AAB72193 ethylene responsive factor BLink, Related Sequences, Nucleotide, Taxonomy [Oryza sativa]**

LOCUS AAB72193 636 aa PLN 06-OCT-1997  
 DEFINITION ethylene responsive factor [Oryza sativa].  
 ACCESSION AAB72193  
 PID g2281705  
 VERSION AAB72193.1 GI:2281705  
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 KEYWORDS .  
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 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; Liliopsida; Poales; Poaceae; Ehrhartoideae; Oryzeae;  
 Oryza.  
 REFERENCE 1 (residues 1 to 636)  
 AUTHORS Yau,C.P. and Yip,W.K.  
 TITLE Nucleotide sequence of a full-length cDNA encoding an ethylene  
 receptor from rice (Accession No. AF013979) (PGR97-134)  
 JOURNAL Plant Physiol. 115, 315 (1997)  
 REFERENCE 2 (residues 1 to 636)  
 AUTHORS Yau,C.P. and Yip,W.K.  
 TITLE Direct Submission  
 JOURNAL Submitted (14-JUL-1997) Botany, University of Hong Kong, Pokfulam  
 Road, Hong Kong, Hong Kong  
 COMMENT Method: conceptual translation supplied by author.  
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**ORIGIN**

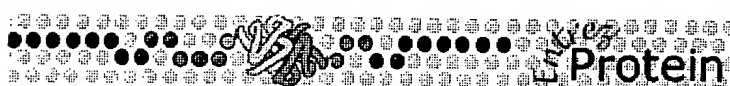
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search	Protein	for					Go
Limits		Index	History	Clipboard			
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: AAD03598 **ethylene response sensor** BLink, Related Sequences, Nucleotide, Taxonomy  
[Vigna radiata]

LOCUS AAD03598 636 aa PLN 10-JAN-1999  
 DEFINITION ethylene response sensor [Vigna radiata].  
 ACCESSION AAD03598  
 PID g4138853  
 VERSION AAD03598.1 GI:4138853  
 DBSOURCE locus AF098272 accession AF098272.1  
 KEYWORDS .  
 SOURCE mung bean.  
 ORGANISM Vigna radiata  
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 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids I;  
 Fabales; Fabaceae; Papilionoideae; Vigna.  
 REFERENCE 1 (residues 1 to 636)  
 AUTHORS Kim, J.H., Lee, J.-H., Joo, S. and Kim, W.T.  
 TITLE Structure of a cDNA encoding an ERS1 homolog and induction of its  
 mRNA by ethylene in mung bean seedlings  
 JOURNAL Unpublished  
 REFERENCE 2 (residues 1 to 636)  
 AUTHORS Kim, J.H., Lee, J.-H., Joo, S. and Kim, W.T.  
 TITLE Direct Submission  
 JOURNAL Submitted (08-OCT-1998) Biology, Yonsei University, Sinchon dong  
 134, Seoul 120-749, Korea  
 COMMENT Method: conceptual translation supplied by author.  
 FEATURES  
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## ORIGIN

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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search Protein [v] for [ ]						Go	Clear
Limits		Index	History	Clipboard			
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: CAB51211 putative protein  
[Arabidopsis thaliana]

BLink, Related Sequences, Nucleotide, Taxonomy

LOCUS CAB51211 599 aa PLN 19-JUL-1999  
 DEFINITION putative protein [Arabidopsis thaliana].  
 ACCESSION CAB51211  
 PID g5541706  
 VERSION CAB51211.1 GI:5541706  
 DBSOURCE embl locus ATT21L8, accession AL096860.1  
 KEYWORDS .  
 SOURCE thale cress.  
 ORGANISM Arabidopsis thaliana  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; Rosidae; eurosids II; Brassicales;  
 Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 599)  
 AUTHORS Choisine, N., Robert, C., Brottier, P., Wincker, P., Cattolico, L.,  
 Artiguenave, F., Saurin, W., Weissenbach, J., Mewes, H.W.,  
 Mayer, K.F.X., Lemcke, K., Schueller, C., Quetier, F. and Salanoubat, M.  
 JOURNAL Unpublished  
 REFERENCE 2 (residues 1 to 599)  
 AUTHORS EU Arabidopsis sequencing, project.  
 TITLE Direct Submission  
 JOURNAL Submitted (19-JUL-1999) MIPS, at the Max-Planck-Institut fuer  
 Biochemie, Am Klopferspitz 18a, D-82152 Martinsried, FRG, E-mail:  
 schueller@mips.biochem.mpg.de, mayer@mips.biochem.mpg.de Project  
 Coordinator: Marcel Salanoubat and Francis Quetier, Groupement  
 d'Interet Public, Centre National de Sequencage - GENOSCOPE; 2 rue  
 Gaston Cremieux, BP191, 91006 Evry Cedex, France;  
 http://www.genoscope.cns.fr  
 COMMENT Information on performance of analysis and a more detailed  
 annotation of this entry and other sequences of chromosomes 3, 4  
 and 5 can be viewed at: <http://www.mips.biochem.mpg.de/proj/thal/>.  
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search		Protein	for				Go
Limits		Index		History		Clipboard	
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: T09672 **ent-kaurene synthase B (EC 2.5.1.-) - winter squash** BLink, PubMed, Related Sequences, Taxonomy

LOCUS T09672 789 aa PLN 21-JUL-2000  
 DEFINITION ent-kaurene synthase B (EC 2.5.1.-) - winter squash.  
 ACCESSION T09672  
 PID g7484763  
 VERSION T09672 GI:7484763  
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 PIR dates: 16-Jul-1999 #sequence\_revision 16-Jul-1999 #text\_change 21-Jul-2000.  
 KEYWORDS transferase.  
 SOURCE winter squash.  
 ORGANISM Cucurbita maxima  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids I; Cucurbitales; Cucurbitaceae; Cucurbita.  
 REFERENCE 1 (residues 1 to 789)  
 AUTHORS Yamaguchi, S., Saito, T., Abe, H., Yamane, H., Murofushi, N. and Kamiya, Y.  
 TITLE Molecular cloning and characterization of a cDNA encoding the gibberellin biosynthetic enzyme ent-kaurene synthase B from pumpkin (*Cucurbita maxima* L.)  
 JOURNAL Plant J. 10 (2), 203-213 (1996)  
 MEDLINE 96367664  
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## ORIGIN

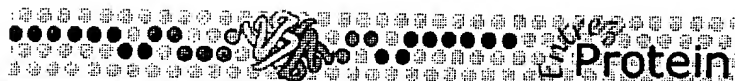
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
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	Limits	Index	History	Clipboard			
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: **BAA34124 3b-hydroxylase** BLink, Related Sequences, Nucleotide, Taxonomy  
**[Lycopersicon esculentum]**

LOCUS BAA34124 373 aa PLN 23-MAY-2000  
 DEFINITION 3b-hydroxylase [Lycopersicon esculentum].  
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 PID g3834350  
 VERSION BAA34124.1 GI:3834350  
 DBSOURCE locus AB010991 accession AB010991.1  
 KEYWORDS .  
 SOURCE tomato.  
 ORGANISM Lycopersicon esculentum  
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 Magnoliophyta; eudicotyledons; Asteridae; euasterids I; Solanales;  
 Solanaceae; Solanum; Lycopersicon.  
 REFERENCE 1 (sites)  
 AUTHORS Yang, Y.Y., Rebers, M., Toyomasu, T., Kawaide, H., Kaneta, T. and  
 Kamiya, Y.  
 TITLE Cloning of two cDNAs encoding gibberellin 3beta-hydroxylase  
 (Accession No. AB010991, AB010992) of tomato (Solanum lycopersicum  
 L.) seedlings (PGR98-200)  
 JOURNAL Plant Physiol. 118, 1534 (1998)  
 REFERENCE 2 (residues 1 to 373)  
 AUTHORS Yang, Y.Y., Kaneta, T. and Kamiya, Y.  
 TITLE Direct Submission  
 JOURNAL Submitted (08-FEB-1998) Yuji Kamiya, Institute of Physical and  
 Chemical Research (RIKEN), Plant Functions Laboratory; Hirosawa  
 2-1, Wako, Saitama 351-0198, Japan  
 (E-mail: ykamiya@postman.riken.go.jp, Tel: 81-48-462-9375,  
 Fax: 81-48-462-4691)  
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 301 svaylygpps gvrvsplskl vdhrhplyr avtwseylgt kakyfdkals svrlcvplng  
 361 ftdakdhkgv qvg  
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NCBI

PubMed Nucleotide Protein Genome Structure PopSet Taxonomy OMIM

Search Protein for Limits Index History Clipboard

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BLink, Related Sequences, Nucleotide, Taxonomy

☐ 1: AAD22645 putative  
P-glycoprotein-like protein  
[Arabidopsis thaliana]

LOCUS AC007138\_9 1230 aa PLN 01-APR-1999  
DEFINITION putative P-glycoprotein-like protein [Arabidopsis thaliana].  
ACCESSION AAD22645  
PID g4558552  
VERSION AAD22645.1 GI:4558552  
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ORGANISM Arabidopsis thaliana  
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;  
Brassicales; Brassicaceae; Arabidopsis.  
REFERENCE 1 (residues 1 to 1230)  
AUTHORS Huang, E.N., Nascimento, L., de la Bastide, M., Habermann, K.,  
Vil, M.D., Preston, R.R., Spiegel, L.A., See, L.H., Shah, R., Matero, A.,  
O'Shaughnessy, A., Rodriguez, M., Shekher, M., Swaby, I., Schutz, K.,  
Parnell, L.D., Dedhia, N.N. and McCombie, W.R.  
TITLE Arabidopsis thaliana BAC T7B11 from chromosome IV near 10 cM  
JOURNAL Unpublished  
REFERENCE 2 (residues 1 to 1230)  
AUTHORS Huang, E.N., Nascimento, L., de la Bastide, M., Habermann, K.,  
Vil, M.D., Preston, R.R., Spiegel, L.A., See, L.H., Shah, R., Matero, A.,  
O'Shaughnessy, A., Rodriguez, M., Shekher, M., Swaby, I., Schutz, K.,  
Parnell, L.D., Dedhia, N.N. and McCombie, W.R.  
TITLE Direct Submission  
JOURNAL Submitted (23-MAR-1999) Lita Annenberg Hazen Genome Sequencing  
Center, Cold Spring Harbor Laboratory, 1 Bungtown Road, Cold Spring  
Harbor, NY 11724  
REFERENCE 3 (residues 1 to 1230)  
AUTHORS Parnell, L.D.  
TITLE Direct Submission  
JOURNAL Submitted (01-APR-1999) Lita Annenberg Hazen Genome Sequencing  
Center, Cold Spring Harbor Laboratory, 1 Bungtown Road, Cold Spring  
Harbor, NY 11724  
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## ORIGIN

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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
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☐ 1: [AAF71978](#) Putative ABC transporter BLINK, Related Sequences, Nucleotide, Taxonomy  
[Arabidopsis thaliana]

LOCUS AC013453\_3 1423 aa PLN 25-MAY-2000  
 DEFINITION Putative ABC transporter [Arabidopsis thaliana].  
 ACCESSION AAF71978  
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 DBSOURCE locus AC013453 accession [AC013453.1](#)  
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 Brassicales; Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 1423)  
 AUTHORS Federspiel, N.A., Palm, C.J., Conway, A.B., Conn, L., Hansen, N.F.,  
 Altafi, H., Araujo, R., Huizar, L., Rowley, D., Buehler, E., Dunn, P.,  
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 Walker, M., Yu, G., Ecker, J., Theologis, A. and Davis, R.W.  
 JOURNAL Unpublished  
 REFERENCE 2 (residues 1 to 1423)  
 AUTHORS Federspiel, N.A., Palm, C.J., Conway, A.B., Conn, L., Hansen, N.F.,  
 Altafi, H., Araujo, R., Huizar, L., Rowley, D., Buehler, E., Dunn, P.,  
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 TITLE Direct Submission  
 JOURNAL Submitted (12-NOV-1999) DNA Sequencing and Technology Center,  
 Stanford University, 855 California Avenue, Palo Alto, CA 94304,  
 USA  
 REFERENCE 3 (residues 1 to 1423)  
 AUTHORS Federspiel, N.A., Palm, C.J., Conway, A.B., Conn, L., Hansen, N.F.,  
 Altafi, H., Nguyen, M., Lam, B., Southwick, A., Ecker, J., Theologis, A.  
 and Davis, R.W.  
 TITLE Direct Submission  
 JOURNAL Submitted (25-MAY-2000) DNA Sequencing and Technology Center,  
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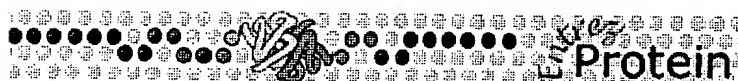
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
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☐ 1: AAB63643 **ABC transporter (PDR5-like) isolog [Arabidopsis thaliana]** BLink, Related Sequences, Nucleotide, Taxonomy

LOCUS AAB63643 1416 aa PLN 22-JUL-1997

DEFINITION ABC transporter (PDR5-like) isolog.

ACCESSION AAB63643

PID g2062169

VERSION AAB63643.1 GI:2062169

DBSOURCE locus ATAC001645 accession AC001645.1

KEYWORDS .

SOURCE thale cress.

ORGANISM Arabidopsis thaliana  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;  
 Brassicales; Brassicaceae; Arabidopsis.

REFERENCE 1 (residues 1 to 1416)

AUTHORS Rounsley, S.D., Lin, X., Ketchum, K.A., Phillips, C.A., Brandon, R.C.,  
 Fuhrmann, J.L., White, O., Kerlavage, A.R., Adams, M.D.,  
 Somerville, C.R. and Venter, J.C.

TITLE Arabidopsis thaliana chromosome III BAC T02004 genomic sequence

JOURNAL Unpublished

REFERENCE 2 (residues 1 to 1416)

AUTHORS Rounsley, S.D.

TITLE Direct Submission

JOURNAL Submitted (22-APR-1997) The Institute for Genomic Research, 9712  
 Medical Center Dr., Rockville, MD 20850, USA

REFERENCE 3 (residues 1 to 1416)

AUTHORS Rounsley, S.D.

TITLE Direct Submission

JOURNAL Submitted (22-JUL-1997) The Institute for Genomic Research, 9712  
 Medical Center Dr., Rockville, MD 20850, USA

COMMENT Method: conceptual translation.

FEATURES

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ORIGIN

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PubMed Nucleotide Protein Genome Structure PopSet Taxonomy OMIM  
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☐ 1: AAD24623 putative BLINK, PubMed, Related Sequences, Nucleotide, Genome, Tax  
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 transporter  
 [Arabidopsis  
 thaliana]

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 Brassicales; Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 1450)  
 AUTHORS Lin,X., Kaul,S., Rounsley,S.D., Shea,T.P., Benito,M.-I., Town,C.D.,  
 Fujii,C.Y., Mason,T.M., Bowman,C.L., Barnstead,M.E.,  
 Feldblyum,T.V., Buell,C.R., Ketchum,K.A., Lee,J.J., Ronning,C.M.,  
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 Goodman,H.M., Somerville,C.R., Copenhaver,G.P., Preuss,D.,  
 Nierman,W.C., White,O., Eisen,J.A., Salzberg,S.L., Fraser,C.M. and  
 Venter,J.C.  
 TITLE Sequence and analysis of chromosome 2 of the plant Arabidopsis  
 thaliana  
 JOURNAL Nature 402 (6763), 761-768 (1999)  
 MEDLINE 20083487  
 PUBMED 10617197  
 REFERENCE 2 (residues 1 to 1450)  
 AUTHORS Lin,X.  
 TITLE Direct Submission  
 JOURNAL Submitted (09-MAR-2000) The Institute for Genomic Research, 9712  
 Medical Center Dr., Rockville, MD 20850, USA  
 COMMENT Method: conceptual translation.  
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☐ 1: AAF19673 **F1N19.11 [Arabidopsis thaliana]** BLink, Related Sequences, Nucleotide, Taxonomy

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 ORGANISM Arabidopsis thaliana  
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 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;  
 Brassicales; Brassicaceae; Arabidopsis.

REFERENCE 1 (residues 1 to 1270)  
 AUTHORS Chao,Q., Brooks,S., Buehler,E., Johnson-Hopson,C., Khan,S., Kim,C.,  
 Shinn,P., Tambunga,G., Altafi,H., Bei,Q., Chin,C., Chiou,J.,  
 Choi,E., Conn,L., Conway,A., Gonzales,A., Hansen,N., Howng,B.,  
 Koo,T., Lam,B., Lee,J., Lenz,C., Li,J., Liu,A., Liu,K., Liu,S.,  
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 Southwick,A., Thaveri,A., Toriumi,M., Vaysberg,M., Yu,G.,  
 Federspiel,N.A., Theologis,A. and Ecker,J.R.  
 TITLE Genomic sequence for Arabidopsis thaliana BAC F1N19 from chromosome  
 I  
 JOURNAL Unpublished

REFERENCE 2 (residues 1 to 1270)  
 AUTHORS Ecker,J.R.  
 TITLE Direct Submission  
 JOURNAL Submitted (26-AUG-1999) Arabidopsis thaliana Genome Center,  
 Department of Biology, University of Pennsylvania, 38th Street and  
 Hamilton Walk, Philadelphia, Pennsylvania 19104-6018, USA

REFERENCE 3 (residues 1 to 1270)  
 AUTHORS Ecker,J.R.  
 TITLE Direct Submission  
 JOURNAL Submitted (14-OCT-1999) Arabidopsis thaliana Genome Center,  
 Department of Biology, University of Pennsylvania, 38th Street and  
 Hamilton Walk, Philadelphia, Pennsylvania 19104-6018, USA

REFERENCE 4 (residues 1 to 1270)  
 AUTHORS Chao,Q., Brooks,S., Buehler,E., Johnson-Hopson,C., Khan,S., Kim,C.,  
 Shinn,P., Altafi,H., Bei,B., Chin,C., Chiou,J., Choi,E., Conn,L.,  
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 Thaveri,A., Toriumi,M., Vaysberg,M., Yu,G., Davis,R.,  
 Federspiel,N., Theologis,A. and Ecker,J.  
 TITLE Direct Submission  
 JOURNAL Submitted (23-DEC-1999) Arabidopsis thaliana Genome Center,  
 Department of Biology, University of Pennsylvania, 38th and  
 Hamilton Walk, Philadelphia, PA 19104-6018, USA

REFERENCE 5 (residues 1 to 1270)  
 AUTHORS Cheuk,R., Shinn,P., Brooks,S., Buehler,E., Chao,Q.,  
 Johnson-Hopson,C., Khan,S., Kim,C., Altafi,H., Bei,B., Chin,C.,  
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TITLE Direct Submission  
JOURNAL Submitted (28-JUN-2000) Arabidopsis thaliana Genome Center,  
Department of Biology, University of Pennsylvania, 38th and  
Hamilton Walk, Philadelphia, PA 19104-6018, USA

REFERENCE 6 (residues 1 to 1270)  
AUTHORS Chao, Q., Brooks, S., Buehler, E., Johnson-Hopson, C., Khan, S., Kim, C.,  
Shinn, P., Altafi, H., Bei, B., Chin, C., Chiou, J., Choi, E., Conn, L.,  
Conway, A., Gonzalez, A., Hansen, N., Howing, B., Koo, T., Lam, B.,  
Lee, J., Lenz, C., Li, J., Liu, A., Liu, J., Liu, S., Mukharsky, N.,  
Nguyen, M., Palm, C., Pham, P., Sakano, H., Schwartz, J., Southwick, A.,  
Thaveri, A., Toriumi, M., Vaysberg, M., Yu, G., Davis, R.,  
Federspiel, N., Theologis, A. and Ecker, J.

TITLE Direct Submission  
JOURNAL Submitted (11-OCT-2000) Arabidopsis thaliana Genome Center,  
Department of Biology, University of Pennsylvania, 38th and  
Hamilton Walk, Philadelphia, PA 19104-6018, USA

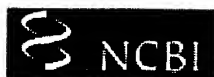
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241 mdsllvearld lrlwvstdsy dsdyedkdfd vyrpydvfgd vtslvsgirk vktlhlspds  
301 leafffccnh mpvfnnlrnl slesdeekgw qalplllnns lnlhtlsikg lvhrvtsrcg  
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1261 dykkllqsst

//

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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
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☐ 1: AAA91256 coded for by C. BLink, PubMed, Related Sequences, Nucleotide, Genome, T  
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**yk95g9.3;**  
**Similar to**  
**acyl-CoA**  
**thioesterase**  
**[Caenorhabditis**  
**elegans]**

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 Rhabditoidea; Rhabditidae; Peloderinae; Caenorhabditis.  
 REFERENCE 1 (residues 1 to 343)  
 AUTHORS Wilson,R., Ainscough,R., Anderson,K., Baynes,C., Berks,M.,  
 Bonfield,J., Burton,J., Connell,M., Copsey,T., Cooper,J.,  
 Coulson,A., Craxton,M., Dear,S., Du,Z., Durbin,R., Favello,A.,  
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 Vaughan,K., Waterston,R., Watson,A., Weinstock,L.,  
 Wilkinson-Sproat,J. and Wohldman,P.  
 TITLE 2.2 Mb of contiguous nucleotide sequence from chromosome III of C.  
 elegans  
 JOURNAL Nature 368 (6466), 32-38 (1994)  
 MEDLINE 94150718  
 REFERENCE 2 (residues 1 to 343)  
 AUTHORS Minx,P. and Le,T.  
 TITLE The sequence of C. elegans cosmid F25E2  
 JOURNAL Unpublished  
 COMMENT Submitted by:  
 Genome Sequencing Center  
 Department of Genetics, Washington University,  
 St. Louis, MO 63110, USA, and  
 Sanger Centre, Hinxton Hall  
 Cambridge CB10 1RQ, England  
 e-mail: rw@nematode.wustl.edu and jes@sanger.ac.uk  
 NEIGHBORING COSMID INFORMATION:  
 5' cosmid is T04G9, 650 bp overlap; 3' cosmid is F39H12, 200 bp  
 overlap. Actual start of this cosmid is at base position 26996 of  
 CELT04G9; actual end is at bp 29780 of CELF25E2.

## NOTES:

Coding sequences below are predicted from computer analysis, using the program Genefinder(P. Green and L. Hillier, ms in preparation).

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## ORIGIN

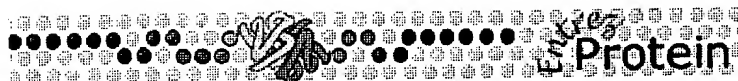
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**thioesterase**  
**[Homo**  
**sapiens]**

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 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1 (residues 1 to 319)  
 AUTHORS Liu, L.X., Margottin, F., Le Gall, S., Schwartz, O., Selig, L.,  
 Benarous, R. and Benichou, S.  
 TITLE Binding of HIV-1 Nef to a novel thioesterase enzyme correlates with  
 Nef-mediated CD4 down-regulation  
 JOURNAL J. Biol. Chem. 272 (21), 13779-13785 (1997)  
 MEDLINE 97298085  
 REFERENCE 2 (residues 1 to 319)  
 AUTHORS Watanabe H, Shiratori T, Shoji H, Miyatake S, Okazaki Y, Ikuta K,  
 Sato T and Saito T.  
 TITLE A novel acyl-CoA thioesterase enhances its enzymatic activity by  
 direct binding with HIV Nef  
 JOURNAL Biochem. Biophys. Res. Commun. 238 (1), 234-239 (1997)  
 MEDLINE 97445158  
 PUBMED 9299485  
 REFERENCE 3 (residues 1 to 319)  
 AUTHORS Jones JM, Nau K, Geraghty MT, Erdmann R and Gould SJ.  
 TITLE Identification of peroxisomal acyl-CoA thioesterases in yeast and  
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 JOURNAL J. Biol. Chem. 274 (14), 9216-9223 (1999)  
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 301 tcaqegvirv kpqvseskr
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 DEFINITION probable ethylene-response protein - rice.  
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 REFERENCE 1 (residues 1 to 636)  
 AUTHORS Yau, C.P. and Yip, W.K.  
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 JOURNAL Submitted (??-JUL-1997) to the EMBL Data Library  
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**[Arabidopsis thaliana]**

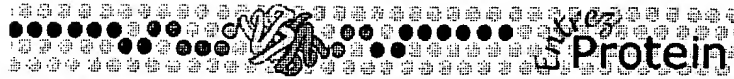
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 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;  
 Brassicales; Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 322)  
 AUTHORS Parnell,L.D., Gnoj,L., de la Bastide,M., Hameed,A., Habermann,K.,  
 Schutz,K., Huang,E., Gottesman,T., Dedhia,N.N. and McCombie,W.R.  
 TITLE Genomic sequence of BAC T4I9 from *Arabidopsis thaliana*, Chromosome  
 IV, near 16.6 cM  
 JOURNAL Unpublished  
 REFERENCE 2 (residues 1 to 322)  
 AUTHORS Gnoj,L., Parnell,L.D., de la Bastide,M., Hameed,A., Habermann,K.,  
 Schutz,K., Huang,E., Gottesman,T., Dedhia,N.N. and McCombie,W.R.  
 TITLE Direct Submission  
 JOURNAL Submitted (29-MAY-1998) Lita Annenberg Hazen Genome Sequencing  
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         20-oxidase, GenBank accession number U58830; similar to O.  
         sativa gibberellin C-20 oxidase, GenBank accession number  
         U50333; similar to P. vulgaris gibberellin 20-oxidase,  
         GenBank accession number U70531; most similar to T4I9.6  
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ORIGIN

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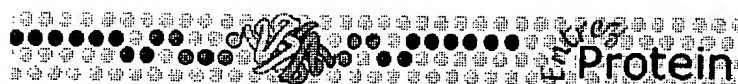
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
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 Phaseolus.  
 REFERENCE 1 (residues 1 to 332)  
 AUTHORS Thomas, S.G., Phillips, A.L. and Hedden, P.  
 TITLE Molecular cloning and functional expression of gibberellin 2-  
 oxidases, multifunctional enzymes involved in gibberellin  
 deactivation  
 JOURNAL Proc. Natl. Acad. Sci. U.S.A. 96 (8), 4698-4703 (1999)  
 MEDLINE 99218343  
 REFERENCE 2 (residues 1 to 332)  
 AUTHORS Phillips, A.L.  
 TITLE Direct Submission  
 JOURNAL Submitted (18-JAN-1999) Phillips A.L., Plant Sciences, IACR Long  
 Ashton Research Station, Long Ashton Research Station, Bristol,  
 BS41 9AF, UK  
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 121 kslcifrenp hhfravveny itavknmcya vlelmaeglg irqrntlsrl lkdeksdscf  
 181 rlnhyppcpe vqalnrlvg fgehtdpqii svlrsnstsg lqicltldgtw vsvpdpqtsf  
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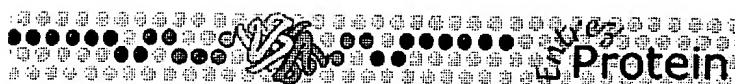
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☐ 1: T06990 **probable giberellin 3beta-dioxygenase (EC BLink, Related Sequences, Taxonomy 1.14.11.15) - wheat**

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 PIR dates: 30-Apr-1999 #sequence\_revision 30-Apr-1999 #text\_change 20-Jun-2000.  
 KEYWORDS ascorbic acid; oxidoreductase; seed.  
 SOURCE bread wheat.  
 ORGANISM *Triticum aestivum*  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; Liliopsida; Poales; Poaceae; Triticum.  
 REFERENCE 1 (residues 1 to 365)  
 AUTHORS Appleford, N.E.  
 TITLE Direct Submission  
 JOURNAL Submitted (??-JUN-1997) to the EMBL Data Library  
 FEATURES Location/Qualifiers  
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Restrictions on Use | Write to the HelpDesk  
NCBI | NLM | NIH



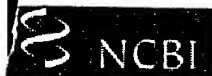
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
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☐ 1: AAD52015 unknown [*Pisum sativum*] BLink, Related Sequences, Nucleotide, Taxonomy

LOCUS AF082862.1 134 aa PLN 01-SEP-1999  
 DEFINITION unknown [*Pisum sativum*].  
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 PID g5813796  
 VERSION AAD52015.1 GI:5813796  
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 KEYWORDS .  
 SOURCE pea.  
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 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids I;  
 Fabales; Fabaceae; Papilionoideae; *Pisum*.  
 REFERENCE 1 (residues 1 to 134)  
 AUTHORS MacKenzie-Hose, A.K., Lester, D.R. and Ross, J.J.  
 TITLE Seeds, GAs and biosynthesis  
 JOURNAL Unpublished  
 REFERENCE 2 (residues 1 to 134)  
 AUTHORS MacKenzie-Hose, A.K., Lester, D.R. and Ross, J.J.  
 TITLE Direct Submission  
 JOURNAL Submitted (07-AUG-1998) Plant Science, University of Tasmania, GPO  
 Box 252-55, Hobart, Tas 7005, Australia  
 COMMENT Method: conceptual translation.  
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 121 pcgkaqvsl asqi  
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 NCBI | NLM | NIH



PubMed Nucleotide Protein Genome Structure PopSet Taxonomy OMIM  
 Search Protein ☒ for     
     
  ☒ as  ☒

☐ 1: **CAB75931 multi resistance protein** BLink, Related Sequences, Nucleotide, Taxonomy  
**homolog [Arabidopsis**  
**thaliana]**

LOCUS CAB75931 1490 aa PLN 23-FEB-2000  
 DEFINITION multi resistance protein homolog [Arabidopsis thaliana].  
 ACCESSION CAB75931  
 PID g7076769  
 VERSION CAB75931.1 GI:7076769  
 DBSOURCE embl locus ATT209, accession AL138658.1  
 KEYWORDS .  
 SOURCE thale cress.  
 ORGANISM Arabidopsis thaliana

Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;  
 euphyllophytes; Spermatophyta; Magnoliophyta; eudicotyledons; core  
 eudicots; Rosidae; eurosids II; Brassicales; Brassicaceae;  
 Arabidopsis.

REFERENCE 1 (residues 1 to 1490)  
 AUTHORS Nyakatura,G., Fartmann,B., Dauner,D., Sterr,W., Holland,R.,  
 Weichselgartner,M., Mewes,H.W., Lemcke,K., Mayer,K.F.X., Quetier,F.  
 and Salanoubat,M.

JOURNAL Unpublished

REFERENCE 2 (residues 1 to 1490)  
 AUTHORS EU Arabidopsis sequencing,project.

TITLE Direct Submission  
 JOURNAL Submitted (23-FEB-2000) MIPS, at the Max-Planck-Institut fuer  
 Biochemie, Am Klopferspitz 18a, D-82152 Martinsried, FRG, E-mail:  
 lemcke@mips.biochem.mpg.de,mayer@mips.biochem.mpg.de Project  
 Coordinator: Marcel Salanoubat and Francis Quetier, Groupement  
 d'Interet Public, Centre National de Sequencage - GENOSCOPE; 2 rue  
 Gaston Cremieux, BP191, 91006 Evry Cedex, France;  
<http://www.genoscope.cns.fr>

COMMENT Information on performance of analysis and a more detailed  
 annotation of this entry and other sequences of chromosomes 3, 4  
 and 5 can be viewed at: <http://www.mips.biochem.mpg.de/proj/thal/>.

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A (P-loop) AA665-672;ATP/GTP-binding site motif A (P-loop)  
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ORIGIN

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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search [Protein] for		Limits		Index	History	Clipboard	Go Clear
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: CAA05625 **AtMRP4** BLink, PubMed, Related Sequences, Nucleotide, Taxonomy  
**[Arabidopsis thaliana]**

LOCUS CAA05625 1516 aa PLN 11-AUG-1998  
 DEFINITION AtMRP4 [Arabidopsis thaliana].  
 ACCESSION CAA05625  
 PID g2959767  
 VERSION CAA05625.1 GI:2959767  
 DBSOURCE embl locus ATDNAMRP4, accession AJ002584.1  
 KEYWORDS .  
 SOURCE thale cress.  
 ORGANISM Arabidopsis thaliana  
 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;  
 euphyllphytes; Spermatophyta; Magnoliophyta; eudicotyledons;  
 Rosidae; Capparales; Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 1516)  
 AUTHORS Sanchez-Fernandez, R.  
 TITLE Direct Submission  
 JOURNAL Submitted (05-NOV-1997) Sanchez-Fernandez R., Department of  
 Genetics, University of Gent (VIB), K.L. Ledeganckstraat 35, 9000  
 Gent, BELGIUM  
 REFERENCE 2 (residues 1 to 1516)  
 AUTHORS Sanchez-Fernandez, R., Ardiles-Diaz, W., Van Montagu, M., Inze, D. and  
 May, M. J.  
 TITLE Cloning and expression analyses of AtMRP4, a novel MRP-like gene  
 from Arabidopsis thaliana  
 JOURNAL Mol. Gen. Genet. 258 (6), 655-662 (1998)  
 MEDLINE 98334109  
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## ORIGIN

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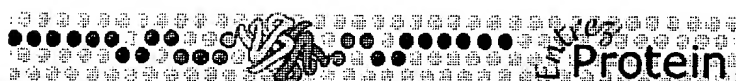
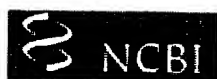
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☐ 1: AAC49791 MRP-like ABC

transporter [Arabidopsis thaliana]

BLink, Related Sequences, Nucleotide, Taxonomy

LOCUS AAC49791 1515 aa PLN 09-AUG-1997  
 DEFINITION MRP-like ABC transporter [Arabidopsis thaliana].  
 ACCESSION AAC49791  
 PID g2316016  
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 DBSOURCE locus ATU92650 accession U92650.1  
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 ORGANISM Arabidopsis thaliana  
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 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;  
 Brassicales; Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 1515)  
 AUTHORS Tommasini,R., Vogt,E., Schmid,J., Fromentau,M., Amrhein,N. and Martinoia,E.  
 TITLE Direct Submission  
 JOURNAL Submitted (10-MAR-1997) Institut fuer Pflanzenwissenschaften, ETH Zuerich, Universitaetstrasse 2, Zuerich 8092, Switzerland  
 COMMENT Method: conceptual translation supplied by author.  
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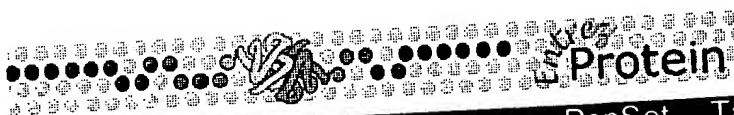
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☐ 1: **T06165 multidrug resistance protein 1** BLink, PubMed, Related Sequences, Taxonomy  
**homolog - barley**

PubMed Nucleotide Protein Genome Structure PopSet Taxonomy OMIM  
 Search: Protein ☒ for Limits Index History Clipboard  
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LOCUS T06165 1232 aa PLN 21-JUL-2000  
 DEFINITION multidrug resistance protein 1 homolog - barley.  
 ACCESSION T06165  
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 VERSION T06165 GI:7442649  
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 superfamily: multidrug resistance protein; ATP-binding cassette  
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 PIR dates: 30-Apr-1999 #sequence\_revision 30-Apr-1999 #text\_change  
 21-Jul-2000.

KEYWORDS .  
 SOURCE barley.  
 ORGANISM *Hordeum vulgare*  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; Liliopsida; Poales; Poaceae; Hordeum.

REFERENCE 1 (residues 1 to 1232)  
 AUTHORS Davies, T.G., Theodoulou, F.L., Hallahan, D.L. and Forde, B.G.  
 TITLE Cloning and characterisation of a novel P-glycoprotein homologue  
 from barley

JOURNAL Gene 199 (1-2), 195-202 (1997)  
 MEDLINE 98019088

FEATURES Location/Qualifiers  
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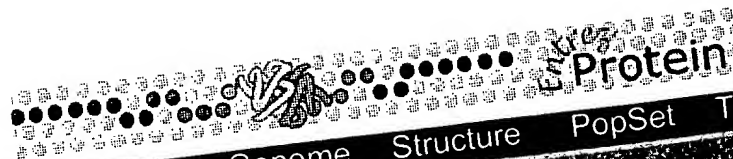
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 1021 agtsiglvgr sgcgkstiig liqrfydvdr gavridgvdr remnvlwyrq ftalvsqepa  
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1141 iaiaraiirn paillldeat saldaqseqv vqealdrimt grttiivahr lntiknads  
1201 aflgegkvie rgtypqlmnk kgaffnlatl qk

//

Restrictions on Use | Write to the HelpDesk  
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☐ 1: T04251 **P-glycoprotein 2 - Arabidopsis thaliana**

☐ Search ☐ Protein ☐ Nucleotide ☐ Genome ☐ Structure ☐ PopSet ☐ Taxonomy ☐ OMIM

☐ Limits ☐ Index ☐ History ☐ Clipboard

☐ Display ☐ Default View ☐ as HTML ☐ Save ☐ Add to Clipboard

☐ BLink, Related Sequences, Taxonomy

LOCUS T04251 1233 aa  
 DEFINITION P-glycoprotein 2 - Arabidopsis thaliana.  
 ACCESSION T04251  
 PID g7442648  
 VERSION T04251 GI:7442648  
 DBSOURCE pir: locus T04251;  
 summary: #length 1233 #molecular-weight 135209 #checksum 3106;  
 genetic: #gene pgp2 #map\_position 4 #introns 81/3; 100/1; 158/3;  
 225/3; 312/2; 492/3; 619/2; 752/1; 832/ 3; 915/2; 1053/1; 1166/3  
 #note F20B18.70;  
 superfamily: multidrug resistance protein; ATP-binding cassette  
 homology;  
 PIR dates: 30-Apr-1999 #sequence\_revision 30-Apr-1999 #text\_change  
 21-Jan-2000.

KEYWORDS thale cress.  
 SOURCE Arabidopsis thaliana  
 ORGANISM Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;  
 Brassicales; Brassicaceae; Arabidopsis.

REFERENCE 1 (residues 1 to 1233)  
 AUTHORS Bevan, M., Rose, M., Hempel, S., Entian, K.D., Hoheisel, J., Mewes, H.W.,  
 Mayer, K.F.X. and Schueller, C.  
 TITLE Direct Submission  
 JOURNAL Submitted (??-MAR-1999) to the Protein Sequence Database

FEATURES Location/Qualifiers  
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 /db\_xref="taxon:3702"  
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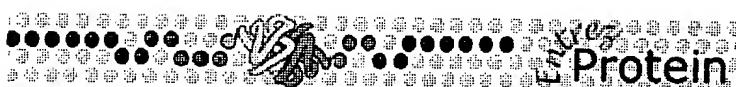
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 61 liniiglayl fpkqashrva kysldfvyls vailfsswle vacwmhtger qaakmrrayl  
 121 rsmisqdisl fdteastgev isaitsdilv vqdalsekvg nflhyisrfi agfaigftsv  
 181 wqislvtsli vplialaggi yafvaiglia rvrksyikag eiaeevignv rtvqftgee  
 241 ravrlyreal entykygrka gltkglglgs mhcvlflswa llvwftsvvv hkdiadggks  
 301 fttmlnvvia glslgqaapd isafvrakaa aypifkmier ntvtktsaks grklgkvdgh  
 361 iqfkdatfsy psrpdvvifd rlnlaipagk ivalvggsgs gkstvislie rfyepisgav  
 421 lldgnnisel dikwlrqqig lvnqepalfa ttirenilyg kddataeeit raaklseais  
 481 finnlpepge tqvgergiql sggqkqriai sraivknpsi llldeatsal daeseksvqe  
 541 aldrvmvgrt tvvvahrilst vrnadiiavv hegkivefgn henlisnpgd ayssllrlqe  
 601 taslqrnpsl nrtlsrphsi kysrelsrtr ssfcseresv trpdgadpsk kvkvtvgrly  
 661 smirpdmwyg vcgticafia gsqmplfalg vsqalvsyys gwdetqkeik kiailfccas  
 721 vitlivytie hicfgtmger ltlrvrenmf railkneigw fdevdntssm lasrlesdat  
 781 llktivvdrs tillqnlglv vtsfiiafil nwrltlvlla typlvisghi seklfmqgyg  
 841 gdlmkaylka nmlagesvsn irtvaafcae ekilelysre llepskssfr rgqiaglfyg  
 901 vsqffifssy glalwygstl mdkglagfks vmkktfmvliw talamgetla lapdlikgnq

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961 mvasvfeild rktqivgets eelnnvegti elkghfsyp srpdvvifrd fdliivragks
1021 malvgqsgsg kssvislilr fydptagkvm iegkdikkld lkalkhigl vqqepalfat
1081 tiyenilygn egasqsevve samlanahsf itslpegyst kvgergvqms ggqrqriaia
1141 railknpail lldeatsald veservvqqa ldrlmanrtt vvvahrlsti knadtisvlh
1201 ggkiveqgsh rklvlnksgp yfklislqqq qqp
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//

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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	
Search	Protein	for					Go	Clear
Limits		Index	History	Clipboard				
Display	Default View	as	HTML	Save	Add to Clipboard			

☐ 1: T05802 **hypothetical protein M7J2.180 -**  
**Arabidopsis thaliana**

BLink, Related Sequences, Taxonomy

LOCUS T05802 280 aa PLN 17-MAR-2000  
DEFINITION hypothetical protein M7J2.180 - Arabidopsis thaliana.  
ACCESSION T05802  
PID g7486813  
VERSION T05802 GI:7486813  
DBSOURCE pir: locus T05802;  
summary: #length 280 #molecular-weight 30185 #checksum 9046;  
genetic: #map\_position 4 #introns 89/3; 119/3; 164/3; 183/3; 202/3  
#note M7J2.180;  
superfamily: inner membrane protein malK; ATP-binding cassette  
homology;  
PIR dates: 23-Apr-1999 #sequence\_revision 23-Apr-1999 #text\_change  
17-Mar-2000.

KEYWORDS .  
SOURCE thale cress.  
ORGANISM Arabidopsis thaliana  
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;  
Brassicales; Brassicaceae; Arabidopsis.

REFERENCE 1 (residues 1 to 280)  
AUTHORS Bevan, M., Barges, M., Perez-Perez, A., Terol, J., Torres, A.,  
Perez-Alonso, M., Hoheisel, J., Mewes, H.W., Mayer, K.F.X. and  
Schueller, C.  
TITLE Direct Submission  
JOURNAL Submitted (??-APR-1998) to the Protein Sequence Database

FEATURES Location/Qualifiers  
source 1..280  
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/db\_xref="taxon:3702"  
Protein 1..280  
/product="hypothetical protein M7J2.180"

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1 msvlmvksdq eklsssylytt afylfhicfs fpcsilssvd vhfayplrpd vkvldglsit  
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121 pvlflslvae niayglpneh vskddiikaa kaanahdfii slpqqydtlv gerggllsgg  
181 qrqrvaiaars llknapilil deatsaldav serlvqsaln rlmkdrttlv iahrlstvsq  
241 anqiavcsdg kiielgthse lvaqkgsyas lvgtrqlafe

//

Restrictions on Use | Write to the HelpDesk  
NCBI | NLM | NIH

PubMed Nucleotide Protein Genome Structure PopSet Taxonomy OMIM

Search Protein for Limits Index History Clipboard

Display Default View as HTML Save Add to Clipboard

1: AAC13635 F6N23.3 gene product BLink, Related Sequences, Nucleotide, Taxonomy  
[Arabidopsis thaliana]

LOCUS AAC13635 213 aa PLN 12-NOV-1999

DEFINITION F6N23.3 gene product [Arabidopsis thaliana].

ACCESSION AAC13635

PID g3047124

VERSION AAC13635.1 GI:3047124

DBSOURCE locus F6N23 accession AF058919.2

KEYWORDS .

SOURCE thale cress.

ORGANISM Arabidopsis thaliana

Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II; Brassicales; Brassicaceae; Arabidopsis.

REFERENCE 1 (residues 1 to 213)

AUTHORS Geisel,C.

TITLE The sequence of A. thaliana F6N23

JOURNAL Unpublished

REFERENCE 2 (residues 1 to 213)

AUTHORS Washington University Genome Sequencing Center.

TITLE The A. thaliana Genome Sequencing Project

JOURNAL Unpublished

REFERENCE 3 (residues 1 to 213)

AUTHORS Waterston,R.

TITLE Direct Submission

JOURNAL Submitted (10-APR-1998) Department of Genetics, Washington University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, USA

REFERENCE 4 (residues 1 to 213)

AUTHORS Waterston,R.

TITLE Direct Submission

JOURNAL Submitted (12-NOV-1999) Department of Genetics, Washington University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, USA

COMMENT Method: conceptual translation.

FEATURES

source Location/Qualifiers

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/cultivar="Columbia"

/db\_xref="taxon:3702"

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Protein 1..213

CDS 1..213

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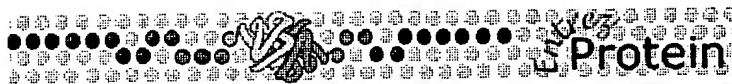
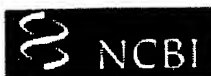
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121 nrstkqnksp prcvafasd lifatislnp hrregmsvaa lsldhsmwfh rpvraddwll

181 fvivsptate srgfatgkmf nrkgevrcci eee



PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search		Protein	for		Go	Clear	
Limits		Index		History		Clipboard	
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: AAF17668 **F20B24.12** [*Arabidopsis thaliana*] BLINK, Related Sequences, Nucleotide, Taxonomy

LOCUS C009398 17 1316 aa PLN 11-OCT-2000  
 DEFINITION F20B24.12 [*Arabidopsis thaliana*].  
 ACCESSION AAF17668  
 PID g6573748  
 VERSION AAF17668.1 GI:6573748  
 DBSOURCE locus AC009398 accession AC009398.6  
 KEYWORDS .  
 SOURCE thale cress.  
 ORGANISM *Arabidopsis thaliana*  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Eudicotyledons; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II; Brassicales; Brassicaceae; *Arabidopsis*.  
 REFERENCE 1 (residues 1 to 1316)  
 AUTHORS Shinn, P., Brooks, S., Buehler, E., Chao, Q., Johnson-Hopson, C., Khan, S., Kim, C., Altafi, H., Bei, Q., Chin, C., Chiou, J., Choi, E., Conn, L., Conway, A., Gonzales, A., Hansen, N., Howing, B., Koo, T., Lam, B., Lee, J., Lenz, C., Li, J., Liu, A., Liu, K., Liu, S., Mukharsky, N., Nguyen, M., Palm, C., Pham, P., Sakano, H., Schwartz, J., Southwick, A., Thaveri, A., Toriumi, M., Vaysberg, M., Yu, G., Federspiel, N.A., Theologis, A. and Ecker, J.R.  
 TITLE Genomic sequence for *Arabidopsis thaliana* BAC F20B24 from chromosome I  
 JOURNAL Unpublished  
 REFERENCE 2 (residues 1 to 1316)  
 AUTHORS Ecker, J.R.  
 TITLE Direct Submission  
 JOURNAL Submitted (21-AUG-1999) *Arabidopsis thaliana* Genome Center, Department of Biology, University of Pennsylvania, 38th Street and Hamilton Walk, Philadelphia, Pennsylvania 19104-6018, USA  
 REFERENCE 3 (residues 1 to 1316)  
 AUTHORS Ecker, J.R.  
 TITLE Direct Submission  
 JOURNAL Submitted (06-NOV-1999) *Arabidopsis thaliana* Genome Center, Department of Biology, University of Pennsylvania, 38th Street and Hamilton Walk, Philadelphia, Pennsylvania 19104-6018, USA  
 REFERENCE 4 (residues 1 to 1316)  
 AUTHORS Chao, Q., Brooks, S., Buehler, E., Johnson-Hopson, C., Khan, S., Kim, C., Shinn, P., Altafi, H., Bei, B., Chin, C., Chiou, J., Choi, E., Conn, L., Conway, A., Gonzalez, A., Hansen, N., Howing, B., Koo, T., Lam, B., Lee, J., Lenz, C., Li, J., Liu, A., Liu, J., Liu, S., Mukharsky, N., Nguyen, M., Palm, C., Pham, P., Sakano, H., Schwartz, J., Southwick, A., Thaveri, A., Toriumi, M., Vaysberg, M., Yu, G., Davis, R., Federspiel, N., Theologis, A. and Ecker, J.  
 TITLE Direct Submission  
 JOURNAL Submitted (14-DEC-1999) *Arabidopsis thaliana* Genome Center, Department of Biology, University of Pennsylvania, 38th and Hamilton Walk, Philadelphia, PA 19104-6018, USA  
 REFERENCE 5 (residues 1 to 1316)  
 AUTHORS Chao, Q., Brooks, S., Buehler, E., Johnson-Hopson, C., Khan, S., Kim, C., Shinn, P., Altafi, H., Bei, B., Chin, C., Chiou, J., Choi, E., Conn, L., Conway, A., Gonzalez, A., Hansen, N., Howing, B., Koo, T., Lam, B.,

Lee, J., Lenz, C., Li, J., Liu, A., Liu, J., Liu, S., Mukharsky, N.,  
 Nguyen, M., Palm, C., Pham, P., Sakano, H., Schwartz, J., Southwick, A.,  
 Thaveri, A., Toriumi, M., Vaysberg, M., Yu, G., Davis, R.,  
 Federspiel, N., Theologis, A. and Ecker, J.

TITLE Direct Submission  
 JOURNAL Submitted (11-OCT-2000) Arabidopsis thaliana Genome Center,  
 Department of Biology, University of Pennsylvania, 38th and  
 Hamilton Walk, Philadelphia, PA 19104-6018, USA

COMMENT Method: conceptual translation.

FEATURES  
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 /db\_xref="taxon:3702"  
 /chromosome="1"  
 /clone="F20B24"  
 Protein 1..1316  
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 CDS 1..1316  
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 AC009398.6:40651..41036,AC009398.6:41129..42133,  
 AC009398.6:42193..42452,AC009398.6:42541..42741,  
 AC009398.6:42865..43124,AC009398.6:43207..43261,  
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 121 kaylrsmisq dislfdteis tgevisaits eilvvqdais ekvrytkikp vlvlnfgcwi  
 181 fnfpiasmhl vgnfmhfisr fiagfaigfa svwqislvtl sivpfialag giyafvssgl  
 241 ivrvrksyvk aneiaeevig nvrtvqaftg eekavssyqg alrntynygr kaglakglgl  
 301 gslhfvflfs walliwftsi vvhkgiangg esfttmlnvv iagfhnkalf lyrslgqaap  
 361 distfmrasa aaypifqmie rntedktgrk lgnvngdilt kdvtftypsr pdvvifdkln  
 421 fvipagkvva lvvgsgsgks tmislierfy eptdgavmld gndiryldlk wlrghiglvn  
 481 qepvlfatti renimygkdd atseeitnaa klseaisfin nlpegfetqv crtssdslehk  
 541 klttvnprfc llfglqvger giqlsggqkq risisraivk npsillldea tsaldaesek  
 601 ivqealdrvm vgrttvvvah rlstvrnadi iavvgggkii esgshdelis npdgayssll  
 661 riqeaaspnl nhtpslpvst kplpelpite ttssihqsvn qpdttkqakv tvgrlysmir  
 721 pdwkyglcgt lgsfiagsqm plfalgiaqa lvsyymdwet tqnevkrisi lfccgsvitv  
 781 ivhtiehttf gimgerltlr vrqkmfsail rneigwfdkv dntssmlasr lesdatllrt  
 841 ivvdrstill enlglvvtaf iisfilnwrl tlvvlatypl iisghisevk rsflrfyilf  
 901 fgrqkifmqg yggnlskayl kanmlagesi snirtvvafo aseekvldlys kellepers  
 961 frrgqmagil ygvsgffifs syglalwyiy klfhtkygsi lmekglssfe svmktfmvli  
 1021 vtalvmgevl alapdllkgn qmvsvsfell drrtqvvgdt geelsnvegt ielkgvhfsy  
 1081 psrpdvtifs dfnllvpsgk smalvgqsgs gkssvlsvl rfydptagii midgqdikkl  
 1141 klkslrrhig lvqqepalfa ttiyenilyg kegasesevm eaaklanahs fisslpegys  
 1201 tkvgergiqm sggqrqriai aravlknpei llldeatsal dveservvqq aldrldmrdrt  
 1261 tvvvahrlst iknsdmisvi qdgkiieqgs hnilvenkng pysklislqq rqrhph

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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	
Search		Protein	for				Go	Clear
Limits		Index		History		Clipboard		
Display	Default View	as	HTML	Save	Add to Clipboard			

☐ 1: [BAA96612](#) **Similar to Arabidopsis thaliana chromosome 2, BAC F14M4 ; putative ABC transporter (AC004411) [Oryza sativa]** BLINK, Related Sequences, Nucleotide, Taxonomy

LOCUS BAA96612 1285 aa PLN 10-JUN-2000  
 DEFINITION Similar to Arabidopsis thaliana chromosome 2, BAC F14M4 ; putative ABC transporter (AC004411) [Oryza sativa].  
 ACCESSION BAA96612  
 PID g8468012  
 VERSION BAA96612.1 GI:8468012  
 DBSOURCE locus AP002482 accession [AP002482.1](#)  
 KEYWORDS .  
 SOURCE Oryza sativa.  
 ORGANISM Oryza sativa  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Oryza.  
 REFERENCE 1 (residues 1 to 1285)  
 AUTHORS Sasaki,T., Matsumoto,T. and Yamamoto,K.  
 TITLE Oryza sativa nipponbare(GA3) genomic DNA, chromosome 1, PAC clone:P0706B05  
 JOURNAL Published Only in DataBase (2000) In press  
 REFERENCE 2 (residues 1 to 1285)  
 AUTHORS Sasaki,T., Matsumoto,T. and Yamamoto,K.  
 TITLE Direct Submission  
 JOURNAL Submitted (07-JUN-2000) Takuji Sasaki, National Institute of Agrobiological Resources, Rice Genome Research Program; Kannondai 2-1-2, Tsukuba, Ibaraki 305-8602, Japan  
 (E-mail:tsasaki@abr.affrc.go.jp,  
 URL:<http://www.dna.affrc.go.jp:82/>, Tel:81-298-38-7441, Fax:81-298-38-7468)  
 COMMENT The orientation of the sequence is from T7 to SP6 of the PAC clone. Genes were predicted from the integrated results of the following:GENSCAN1.0, BLASTN2.0, BLASTX2.0 as well as SplicePredictor (October 1998 version). The genomic sequence was searched against the non-redundant database NRP (PIR, SWISSPROT, GENPEPT, PDB) from MAFF DNA bank and the cDNA sequence database at RGP. Protein similarities of the coding regions were searched against NRP with BLASTP2.0. ESTs represent the identified cDNA sequences using BLASTN2.0 with the corresponding DDBJ accession no. and RGP clone ID.  
 Detailed information on overlap and assembly quality together with annotation of this entry at <http://www.dna.affrc.go.jp:82/genomicdata/GenomeFinished.html>.  
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 /cultivar="Nipponbare"  
 /db\_xref="taxon:4530"  
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 Protein 1..1285

CDS

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F14M4 ; putative ABC transporter (AC004411)"
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AP002482.1:10934..11207,AP002482.1:11317..11842,
AP002482.1:12632..12870,AP002482.1:12993..13214,
AP002482.1:13312..13487,AP002482.1:13585..13981))"
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ORIGIN

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1 mpeswrdaea nasssasvaa adsspngngkg ggggggaava rgeraasasa sarvpfhklf
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121 ylaiasavas fvqvtcwmit gerqaarirn lyktilrqe iaaffdkynt gevvgrmsgd
181 tvliqdamge kvgkfiqlvv tflggfivaf aqgwlltlvm matipplvva gavmsnvvak
241 maslgqaaya essvvveqti gsirtvasft gekqavekyn kslksayksg vreglaaglg
301 mgtvmvllfc gyslgiwyga klillkgytg akvmnvifav ltgslalgga spsmkafagg
361 qaaaykmfet inrkpeiday sttgmkpddi rgdiefrdvy fsyptrpdeq ifrgfslsip
421 sgttvalvgq sgsgkstvis lierfydpql gdvlidgvnl kefqlrwirs kiglvsgpev
481 lfaasikeni aygkdnatdq eiraaaelan askfidkmpq gldtsvgehg tqlsggqkqr
541 iaiarailkd prillldeat saldaeseri vqealdrvmt nrttvivahr lstvrnadi
601 avihqgtlve kgphhellkd pegaysqlik lqeanrqdks drkgdsgars gkqlsingqa
661 srsrrssrdn shhsfsvpfg mplgidiqdg ssdnlcdgmp qdvplsrilas lnkpeipvli
721 lgsiasvisg vifpifaill snvikafyep phllrkdsqf wssmflvfga vyflslpvss
781 ylfsiagcrl ikrirlmtfe kvvnmeiewf dhpenssgai garlsadaak vrglvgdalg
841 lvvqntttli aglviafvsn welsliilal ipliglmgwi qmkfiqgfsa dakmmyeas
901 qvandavssi rtvvsfsae kvmdlykkkc egplrtgirt giisgigfgv sffllfgvya
961 asfyagarlv eenkttfpkv frvflalama aigvsqsstl tsdsskaksa vssifaivdr
1021 ksridpseda gvtvetlhgn iefqhvsfry ptrpdveifr dlcltihsgk tvalvgesgs
1081 gkstaisllq rfydpdvghi lldgvdiqkf qlkwlrqqmg lvsqepalfn dtvraniayg
1141 kegeatesei ieaaklanah kfisssshqgy gttvgergaq lsggqkqria iaraivkdpk
1201 illldeatsa ldaeservvq daldrvmmnr ttvivahrsl tiqnadliav vkngviiekq
1261 khdtlmnikd gayaslvalh saass
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//

Restrictions on Use | Write to the HelpDesk  
NCBI | NLM | NIH

PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search Protein		for		Go		Clear	
Limits		Index		History		Clipboard	
Display		Default View		as HTML		Save	
				Add to Clipboard			

☐ 1: [CAA75922](#) **P-glycoprotein-like protein BLink, Related Sequences, Nucleotide, Taxonomy [Arabidopsis thaliana]**

LOCUS CAA75922 1229 aa PLN 28-DEC-1997  
 DEFINITION P-glycoprotein-like protein [Arabidopsis thaliana].  
 ACCESSION CAA75922  
 PID g2739309  
 VERSION CAA75922.1 GI:2739309  
 DBSOURCE embl locus ATY15990, accession [Y15990.1](#)  
 KEYWORDS .  
 SOURCE thale cress.  
 ORGANISM Arabidopsis thaliana  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; Rosidae; eurosids II; Brassicales;  
 Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 1229)  
 AUTHORS Sidler, M. and Dudler, R.  
 JOURNAL Unpublished  
 REFERENCE 2 (residues 1 to 1229)  
 AUTHORS Dudler, R.  
 TITLE Direct Submission  
 JOURNAL Submitted (19-DEC-1997) R. Dudler, University of Zurich, Institute  
 of Plant Biology, Zollikerstrasse 107, CH-8008 Zurich, Switzerland  
 FEATURES  
 source Location/Qualifiers  
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# ORIGIN

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181 laiagaampi ivtrassreq aayakastvv eqtlgsirtv asftgekqam ksyrefinla
241 yrasvkqgfs mglglgvvff vffcsyalai wfggemilkk gytggevvnv mvtvvassms
301 lgqttpclta faagkaaayk mftetierkps idafdlngkv ledirgeiel rdvcfsypar
361 pmeevfggfs llipsgataa lvgesgsgks svislierfy dpssgsvlid gvnlfefqlk
421 wirgkiglvs qepvlfsssi menigygken atveeiqaaa klanaanfid klprgletlv
481 gehgtqlsgg qkqriaiara ilkdprilll deatsaldae servvqeald rvmmrsrttvi
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601 lrdrsinrgs srnirtrvhd ddsvsvlgll grqenteisr eqsrnvsitr iaalnkpett
661 ililgtllga vngtifpifg ilfakvieaf fkpphdmkrd srfwsmifvl lgvaslivyp
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search		Protein	for				Go
Limits		Index		History		Clipboard	
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: [AAF76889](#) **ABC transporter** BLINK, Related Sequences, Nucleotide, Taxonomy, LinkOut  
[Mus musculus]

LOCUS AF266284\_1 715 aa ROD 18-JUN-2000  
 DEFINITION ABC transporter [Mus musculus].  
 ACCESSION AAF76889  
 PID g8571454  
 VERSION AAF76889.1 GI:8571454  
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 KEYWORDS .  
 SOURCE house mouse.  
 ORGANISM Mus musculus  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.  
 REFERENCE 1 (residues 1 to 715)  
 AUTHORS Shirihi, O.S., Gregory, T., Yu, C., Orkin, S.H. and Weiss, M.J.  
 TITLE ABC-me: A Novel Mitochondrial Transporter Induced by GATA-1 During  
 Erythroid Differentiation  
 JOURNAL EMBO J. (2000) In press  
 REFERENCE 2 (residues 1 to 715)  
 AUTHORS Shirihi, O., Orkin, S.H., Gregory, T. and Weiss, M.J.  
 TITLE Direct Submission  
 JOURNAL Submitted (10-MAY-2000) Hematology-316 ARC, Children's Hospital of  
 Philadelphia, 34th and Civic Center Blvd, Philadelphia, PA 19104,  
 USA  
 COMMENT Method: conceptual translation supplied by author.  
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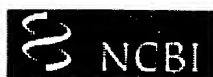
## ORIGIN

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481 sipsgsvtal vqpsgsgkst vslllrllyd pnsgrtvsldg hdirqlnpvw lrskigtvsq
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
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Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: AAC34225 putative ABC transporter [Arabidopsis thaliana] BLink, PubMed, Related Sequences, Nucleotide, Genome, Taxo

LOCUS AAC34225 1286 aa PLN 05-APR-2000  
 DEFINITION putative ABC transporter [Arabidopsis thaliana].  
 ACCESSION AAC34225  
 PID g3522943  
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 DBSOURCE locus AC004411 accession AC004411.2  
 KEYWORDS .  
 SOURCE thale cress.  
 ORGANISM Arabidopsis thaliana  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;  
 Brassicales; Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 1286)  
 AUTHORS Lin,X., Kaul,S., Rounsley,S.D., Shea,T.P., Benito,M.-I., Town,C.D.,  
 Fujii,C.Y., Mason,T.M., Bowman,C.L., Barnstead,M.E.,  
 Feldblyum,T.V., Buell,C.R., Ketchum,K.A., Lee,J.J., Ronning,C.M.,  
 Koo,H., Moffat,K.S., Cronin,L.A., Shen,M., VanAken,S.E., Umayam,L.,  
 Tallon,L.J., Gill,J.E., Adams,M.D., Carrera,A.J., Creasy,T.H.,  
 Goodman,H.M., Somerville,C.R., Copenhaver,G.P., Preuss,D.,  
 Nierman,W.C., White,O., Eisen,J.A., Salzberg,S.L., Fraser,C.M. and  
 Venter,J.C.  
 TITLE Sequence and analysis of chromosome 2 of the plant Arabidopsis  
 thaliana  
 JOURNAL Nature 402 (6763), 761-768 (1999)  
 MEDLINE 20083487  
 PUBMED 10617197  
 REFERENCE 2 (residues 1 to 1286)  
 AUTHORS Lin,X.  
 TITLE Direct Submission  
 JOURNAL Submitted (09-MAR-2000) The Institute for Genomic Research, 9712  
 Medical Center Dr., Rockville, MD 20850, USA  
 COMMENT Method: conceptual translation.  
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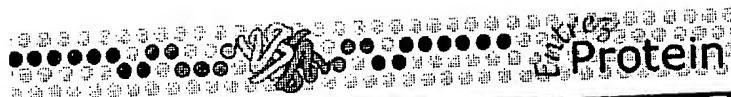
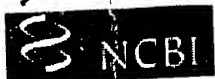
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ORIGIN

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361 ierrpnidsy stngkvlddi kgdielkdvy ftyparpdeq ifrgfslfis sgttvalvgg
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781 tfffaiagck lvqrrismcf ekvvhmevgw fdepenssgt igarlsadaa tirglvgdsl
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901 sqvandavgs irtvasfcae dkvmnmyskk cegpmkngir qgivsgigfg fsffvlfssy
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1081 sgkstviall qrfydpdsge itldgveiks lrlkwlrqqt glvsqepilf netiraniay
1141 gkggdasese ivssaelsna hgfigslqqg ydtmvgergi qlsggqkqrv aiaraivkdp
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1261 gkhdtlinik dgvyaslvql hltaas
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PubMed Nucleotide Protein Genome Structure PopSet Taxonomy OMIM  
 Search Protein ☒ for Limits Index History Clipboard  
 Display Default View as HTML Save Add to Clipboard

☐ 1: CAB83120 ABC transporter-like  
 protein [Arabidopsis  
 thaliana]

BLink, Related Sequences, Nucleotide, Taxonomy

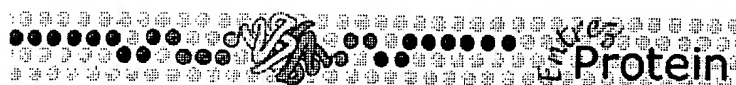
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 ORGANISM Arabidopsis thaliana  
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 Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 1539)  
 AUTHORS Bloecker, H., Mewes, H.W., Rudd, S., Lemcke, K., Mayer, K.F.X.,  
 Quetier, F. and Salanoubat, M.  
 JOURNAL Unpublished  
 REFERENCE 2 (residues 1 to 1539)  
 AUTHORS EU Arabidopsis sequencing, project.  
 TITLE Direct Submission  
 JOURNAL Submitted (29-MAR-2000) MIPS, at the Max-Planck-Institut fuer  
 Biochemie, Am Klopferspitz 18a, D-82152 Martinsried, FRG, E-mail:  
 lemcke@mips.biochem.mpg.de, mayer@mips.biochem.mpg.de Project  
 Coordinator: Marcel Salanoubat and Francis Quetier, Groupement  
 d'Interet Public, Centre National de Sequencage - GENOSCOPE; 2 rue  
 Gaston Cremieux, BP191, 91006 Evry Cedex, France;  
 http://www.genoscope.cns.fr  
 COMMENT Information on performance of analysis and a more detailed  
 annotation of this entry and other sequences of chromosomes 3, 4  
 and 5 can be viewed at: <http://www.mips.biochem.mpg.de/proj/thal/>.  
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 AA674-681;ATP/GTP-binding site motif A (P-loop)  
 AA1331-1338"

## ORIGIN

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241 veksenvsly asasfisktf wlwmnpplrkykspnlndq vptlspehra eklatlfsk
301 wpkpqensrn pvrttlircf wkeiaftavl aiirlsviyv gpvliqsfdv ftsgrkrssps
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481 lgtkrnnryq fslmmnrdsr mkatnemlny mrvikfqawe dhfnerilkf remefgwlsk
541 flysiagnii vlwstpvlis altfttavfl gvkldagtvm ttttifkilq epirtfpqsm
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721 nilfglpmnr skynevlkvc clekdmqime fgdqteiger ginlsggqkq riqlaravyq
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search		Protein	for				
Limits		Index	History	Clipboard			
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: CAA72120 **multi resistance protein** BLink, Related Sequences, Nucleotide, Taxonomy  
[Arabidopsis thaliana]

LOCUS CAA72120 1514 aa PLN 19-MAR-1998  
 DEFINITION multi resistance protein [Arabidopsis thaliana].  
 ACCESSION CAA72120  
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 ORGANISM Arabidopsis thaliana  
 Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;  
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 Rosidae; Capparales; Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 1514)  
 AUTHORS Weigmann,N., Ansorge,M. and Mueller-Roeber,B.  
 JOURNAL Unpublished  
 REFERENCE 2 (residues 1 to 1514)  
 AUTHORS Weigmann,N.  
 TITLE Direct Submission  
 JOURNAL Submitted (14-FEB-1997) N. Weigmann, MPI of Molecular Plant  
 Physiology, Mueller-Roeber, Karl-Liebknechtstr.25, Haus 20, 14476  
 Golm, FRG

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## ORIGIN

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1501 vteyssrstg ipel
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM	
Search	Protein	for					Go	Clear
Limits		Index	History		Clipboard			
Display	Default View	as	HTML	Save	Add to Clipboard			

**1: T00961 hypothetical protein F20D22.11 -  
Arabidopsis thaliana**

[BLink](#), [Related Sequences](#), [Taxonomy](#)

LOCUS T00961 1355 aa PLN 04-MAR-2000  
 DEFINITION hypothetical protein F20D22.11 - Arabidopsis thaliana.  
 ACCESSION T00961  
 PID g7485868  
 VERSION T00961 GI:7485868  
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 628/3; 657/3; 890/3; 945/3; 1044/1; 1115/3; 1217/3; 1239/1; 1319/1;  
 superfamily: human multidrug resistance protein cMOAT2; ATP-binding  
 cassette homology;  
 PIR dates: 12-Feb-1999 #sequence\_revision 12-Feb-1999 #text\_change  
 04-Mar-2000.

**KEYWORDS**

thale cress.

**SOURCE**

ORGANISM Arabidopsis thaliana

Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;  
 Brassicales; Brassicaceae; Arabidopsis.

**REFERENCE**

1 (residues 1 to 1355)  
 AUTHORS Vysotskaia,V.S., Osborne,B.I., Schwartz,J.R., Toriumi,M., Kwan,A.,  
 Yu,G., Oji,O., Liu,S., Li,J., Hoang,L., Araujo,R., Au,M.,  
 Brendel,V., Buehler,E., Conway,A.B., Conway,A.R., Dewar,K.,  
 Feng,J., Kim,C., Kurtz,D., Li,Y., Palm,C.J., Shinn,P., Sun,H.,  
 Davis,R.W., Ecker,J.R., Federspiel,N.A. and Theologis,A.

TITLE Direct Submission

JOURNAL Submitted (??-MAY-1998) to the EMBL Data Library

**FEATURES**

Location/Qualifiers  
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 /db\_xref="taxon:3702"  
 Protein 1..1355  
 /product="hypothetical protein F20D22.11"

**ORIGIN**

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121 nwkrcksenp skppslarai mksfwkeaac navfaglnl vsyvgpylis yfvdyggke
181 ifphegyvla giffstsklie tvtrqwymg vdilgmhvrs altamvyrkq lklssiakqn
241 htsgeivnym avdvqrigdy swylhdiwml pmqivlalai lyksvgiaav atlvtiisi
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361 wlrcalysqa fvtfifwssp ifvaavtfat siflgtqlta ggvlalatf rilqeplnrf
421 pdlvsmmaq kvsldrisgf lqeelqeda tvviprglsn iaieikdgvf cwdpfssrpt
481 lsgiqmkvek gmravvcgtv gsgkssfisc ilgeipkiss evricgttgys vsqsawiqsg
541 nieenilfgs pmehtkyknv iqacslkkdi elfshgdqti igerginlsq gqkqrqlar
601 alyqdadiyl lddpfsalda htgsdlfrdy ilsalaektv vfvthqvefl paadlilvlk
661 egriiqsgky ddllqagtdf kalvsahhea ieamdipsps sedsdnpir dslvlhnpks
721 dvfendietl akevqeggsa sdlkaikek kkakrsrkq lvqeeervkg kvsmkvylysy
781 mgaaykgali pliilaqaaf qflqiasnww mawanpqteg deskvdptll livyatalafg
841 ssvfifvraa lvatfglaaa qklflnmlrs vfrapmsffd stpagrilnr vsidqsvvd
901 dipfrlggfa sttiqlcgiv avmntvtwqv fllvvpvava cfwmqkyyma ssrelvriys
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1141 ivgrtgsgks tliqalfrli eptagkitid nidisqiglh dlrsrlgiip qdptlfegti
1201 ranldpleeh sddkiweald ksqlgdvvrq kdkldspvl engdnwsvgq rqlvslgral
1261 lkqakilvld eatasvdtat dnliqkiirt efedctvcti ahriptvids dlvlvlsdgr
1321 vaefdtparl ledkssmflk lvteyssrst gipel
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//

Restrictions on Use | Write to the HelpDesk  
NCBI | NLM | NIH



PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search: Protein		for			Go	Clear	
Limits		Index	History	Clipboard			
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: [AAD25615](#) Similar to

BLink, Related Sequences, Nucleotide, Taxonomy

**ABC-transporter  
atp-binding protein  
[Arabidopsis thaliana]**

LOCUS C005287\_17 514 aa PLN 10-DEC-1999  
 DEFINITION Similar to ABC-transporter atp-binding protein [Arabidopsis thaliana].  
 ACCESSION AAD25615  
 PID g4585979  
 VERSION AAD25615.1 GI:4585979  
 DBSOURCE locus AC005287 accession [AC005287.4](#)  
 KEYWORDS .  
 SOURCE thale cress.  
 ORGANISM Arabidopsis thaliana  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II; Brassicales; Brassicaceae; Arabidopsis.

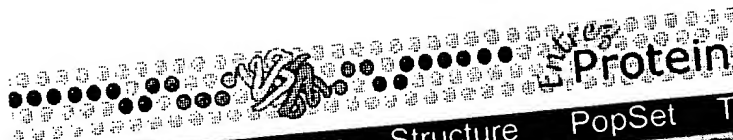
REFERENCE 1 (residues 1 to 514)  
 AUTHORS Federspiel,N.A., Palm,C.J., Conway,A.B., Conn,L., Hansen,N.F., Altafi,H., Araujo,R., Huizar,L., Rowley,D., Buehler,E., Dunn,P., Gonzalez,A., Kremenetskaia,I., Kim,C., Lenz,C., Li,J., Liu,S., Luros,S., Schwartz,J., Shinn,P., Toriumi,M., Vysotskaia,V.S., Walker,M., Yu,G., Ecker,J., Theologis,A. and Davis,R.W.  
 JOURNAL Unpublished  
 REFERENCE 2 (residues 1 to 514)  
 AUTHORS Federspiel,N.A., Palm,C.J., Conway,A.B., Kurtz,D.B., Conway,A.R., Au,M., Araujo,R., Buehler,E., Dewar,K., Feng,J., Kim,C., Li,Y., Oji,O., Osborne,B.I., Shinn,P., Sun,H., Toriumi,M., Vyotskaia,V., Yu,G., Ecker,J., Theologis,A. and Davis,R.W.  
 TITLE Direct Submission  
 JOURNAL Submitted (15-JUL-1998) DNA Sequencing and Technology Center, Stanford University, 855 California Avenue, Palo Alto, CA 94304, USA

REFERENCE 3 (residues 1 to 514)  
 AUTHORS Federspiel,N.A., Palm,C.J., Conway,A.B., Conn,L., Hansen,N.F., Altafi,H., Araujo,R., Huizar,L., Rowley,D., Buehler,E., Dunn,P., Gonzalez,A., Kremenetskaia,I., Kim,C., Lenz,C., Li,J., Liu,S., Luros,S., Schwartz,J., Shinn,P., Toriumi,M., Vyotskaia,V., Walker,M., Yu,G., Ecker,J., Theologis,A. and Davis,R.W.  
 TITLE Direct Submission  
 JOURNAL Submitted (09-MAR-1999) DNA Sequencing and Technology Center, Stanford University, 855 California Avenue, Palo Alto, CA 94304, USA

REFERENCE 4 (residues 1 to 514)  
 AUTHORS Federspiel,N.A., Palm,C.J., Conway,A.B., Conn,L., Hansen,N.F., Altafi,H., Araujo,R., Huizar,L., Rowley,D., Buehler,E., Dunn,P., Gonzalez,A., Kremenetskaia,I., Kim,C., Lenz,C., Li,J., Liu,S., Luros,S., Schwartz,J., Shinn,P., Toriumi,M., Vyotskaia,V., Walker,M., Yu,G., Ecker,J., Theologis,A. and Davis,R.W.  
 TITLE Direct Submission  
 JOURNAL Submitted (17-APR-1999) DNA Sequencing and Technology Center, Stanford University, 855 California Avenue, Palo Alto, CA 94304, USA

REFERENCE 5 (residues 1 to 514)  
AUTHORS Federspiel, N.A., Palm, C.J., Conway, A.B., Conn, L., Hansen, N.F., Altafi, H., Araujo, R., Huizar, L., Rowley, D., Brooks, S., Buehler, E., Chao, Q., Dunn, P., Gonzalez, A., Khan, S., Kremenetskaia, I., Kim, C., Lenz, C., Li, J., Liu, S., Luros, S., Schwartz, J., Shinn, P., Toriumi, M., Vyotskaia, V., Yu, G., Ecker, J., Theologis, A. and Davis, R.W.  
TITLE Direct Submission  
JOURNAL Submitted (10-DEC-1999) DNA Sequencing and Technology Center, Stanford University, 855 California Avenue, Palo Alto, CA 94304, USA  
COMMENT Method: conceptual translation supplied by author.  
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61 nilftiyppl flvlllysfg gtaisvflgk glvnlNFLqe kkeadfrysl vrvrenaesi  
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241 deieltyqse mnsslldtng siksqpqnkr leieeltlqt ptngttlvhv lsadvydkdh  
301 llimgpsgsg ktsllramag lwrsgkgkit ekrrrivpst kalygsgifa saialsylec  
361 ncsppllire dgnekpttd lmrlekvcl ghiadrfggl dsihewssvl slgeqqrlaf  
421 arlllsqpk lalldestsal deaneaflyq qiqsagityi sighrrtltk fhnilqist  
481 adpksnernw riedvdaqds lygrlnqkev pses  
//

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PubMed Nucleotide Protein Genome Structure PopSet Taxonomy OMIM

Search Protein for Limits Index History Clipboard

Display Default View as HTML Save Add to Clipboard

BLINK, Related Sequences, Taxonomy

☐ 1: T06091 hypothetical protein T5J17.20 -  
Arabidopsis thaliana

LOCUS  
DEFINITION  
ACCESSION  
PID  
VERSION  
DBSOURCE

T06091 1383 aa  
hypothetical protein T5J17.20 - Arabidopsis thaliana.  
T06091  
g7487703  
T06091 GI:7487703  
pir: locus T06091;  
summary: #length 1383 #molecular-weight 154829 #checksum 8482;  
genetic: #gene ATSP:T5J17.20 #map\_position 4 #introns 21/2; 116/3;  
191/3; 257/3; 409/2; 454/3; 481/1; 558/3; 660/2; 704/3; 756/3;  
831/1; 867/2; 897/3; 953/3; 992/2; 1070/3; 1131/1; 1198/1; 1247/1;  
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PIR dates: 30-Apr-1999 #sequence\_revision 30-Apr-1999 #text\_change  
22-Oct-1999.

KEYWORDS  
SOURCE  
ORGANISM

thale cress.  
Arabidopsis thaliana  
Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;  
Brassicales; Brassicaceae; Arabidopsis.

REFERENCE  
AUTHORS

1 (residues 1 to 1383)  
Bevan, M., Murphy, G., Ridley, P., Hudson, S., Bancroft, I., Mewes, H.W.,  
Mayer, K.F.X. and Schueller, C.

TITLE  
JOURNAL  
FEATURES

Direct Submission  
Submitted (??-MAR-1999) to the Protein Sequence Database  
Location/Qualifiers  
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/db\_xref="taxon:3702"  
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121 alsnrlakvq gflfraaflr raplflrlis enimlcflms tlhstskyit galslrfrki  
181 ltkiihshyf enmvvyksh vdgrithpeq riasdvprfs selsdlildt ltavtdgily  
241 awrlcsyasp kyifwilayv lgagtairnf spsfgklmsk eqqlegayrq lhrslrthse  
301 siafyggetr eeshiqqkfk nlvshmslhd hdhwwfgmiq dflklkylgat vaviliiepf  
361 fsghlrpdds tlgraemlsn iryhtsviis lfqalgtlsi ssrrlnrlsg yadrihelma  
421 vsrelsgddk ssfqrnrsrn ylseanyvef sdvkvvtptg nvlvedltlr veqgsnllit  
481 gglwplvsgh ivkpgvgsdl nkeifyvpqr pymavgtlrd qliypitgsg esellteigm  
541 vellknvsil vslfytrmvd leylddryqp ekevnwgdsl slgeqqrldg arlfyhhpkpf  
601 aildectsav ttdmeerfaa kvramgtsci tishrpalva fhdvvlslldg egwsvhykr  
661 ddsalltdae idsvkssdt rqn damvvqr afaaarkvsa evlfesatns kaqsyqtqli  
721 arspvvdksv vlprfpqpt sqralpsrva amlnvlpwk phllfcistw ltysscadan  
781 idiillkitd hfivtfqipt ifdkqgaql avaclvsrt lisdrialsn gttvkylvleq  
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01/30/2001 9

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1321 lytsgeeste agsildshlk tilenvrlvy llerdvggwd attnwedils lgeqqrlgmv  
1381 sll

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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search	Protein	for				Go	Clear
Limits	Index	History	Clipboard				
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: AAD03441 contains similarity to **Guillardia theta ABC transporter (GB:AF041468) [Arabidopsis thaliana]** BLink, Related Sequences, Nucleotide, Taxonomy

LOCUS AAD03441 557 aa PLN 10-AUG-1999  
 DEFINITION contains similarity to Guillardia theta ABC transporter (GB:AF041468) [Arabidopsis thaliana].  
 ACCESSION AAD03441  
 PID g4115931  
 VERSION AAD03441.1 GI:4115931  
 DBSOURCE locus T4B21 accession AF118223.2  
 KEYWORDS .  
 SOURCE thale cress.  
 ORGANISM Arabidopsis thaliana  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II; Brassicales; Brassicaceae; Arabidopsis.

REFERENCE 1 (residues 1 to 557)  
 AUTHORS Abbott,A., Kock,J. and Lehnert,L.  
 TITLE The sequence of A. thaliana T4B21  
 JOURNAL Unpublished

REFERENCE 2 (residues 1 to 557)  
 AUTHORS Washington University Genome Sequencing Center.  
 TITLE The A. thaliana Genome Sequencing Project  
 JOURNAL Unpublished

REFERENCE 3 (residues 1 to 557)  
 AUTHORS Waterston,R.  
 TITLE Direct Submission  
 JOURNAL Submitted (06-JAN-1999) Department of Genetics, Washington University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, USA

REFERENCE 4 (residues 1 to 557)  
 AUTHORS Waterston,R.  
 TITLE Direct Submission  
 JOURNAL Submitted (06-AUG-1999) Department of Genetics, Washington University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, USA

REFERENCE 5 (residues 1 to 557)  
 AUTHORS Waterston,R.  
 TITLE Direct Submission  
 JOURNAL Submitted (10-AUG-1999) Department of Genetics, Washington University, 4444 Forest Park Avenue, St. Louis, Missouri 63108, USA

COMMENT Method: conceptual translation.

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 /name="contains similarity to Guillardia theta ABC"

CDS

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ORIGIN

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181 lleyfdklgv plteqkrlan vavdavidsv siatthrktl eksgvifcsi seaireypdl
241 ikkylgrvvp sddnyyaaln savfsdgsfc yipkntrcpm pistyfrina metgqfertl
301 ivaeegsfve ylegctapsy dtnqlhaavv elyqgkgaie kystvqnwya gdegkkggiy
361 nfvtkrqlca gdrskiswtq vetgsaitwk ypsvvlegdd svgefysval tnnyqqadtg
421 tkmihkgknt ksriiskgis aghsrncyrq lvqvqskaeg akntstcdsm ligdkaaant
481 ypyiqvknpk akveheasts kigedqlfyf qrgidhera laamisgfc dvfnklpdef
541 gaevnqlmsi klegsvg
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Search	Protein	<input checked="" type="checkbox"/> for					Go
Limits		Index	History	Clipboard			
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: AAD04949 putative ethylene response BLink, Related Sequences, Nucleotide, Taxonomy sensor [Phalaenopsis sp. 'KCbutterfly']

LOCUS AAD04949 633 aa PLN 14-JAN-1999  
 DEFINITION putative ethylene response sensor [Phalaenopsis sp. 'KCbutterfly'].  
 ACCESSION AAD04949  
 PID g4154359  
 VERSION AAD04949.1 GI:4154359  
 DBSOURCE locus AF113541 accession AF113541.1  
 KEYWORDS .  
 SOURCE Phalaenopsis sp. 'KCbutterfly'.  
 ORGANISM Phalaenopsis sp. 'KCbutterfly'  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; Liliopsida; Asparagales; Orchidaceae; Phalaenopsis.  
 REFERENCE 1 (residues 1 to 633)  
 AUTHORS Chai, I.J., Lee, B.H., Wang, W.K., Liang, C.C. and Lin, C.Y.  
 TITLE Molecular cloning of the Phalaenopsis sp. 'KCbutterfly' ethylene response sensor cDNA  
 JOURNAL Unpublished  
 REFERENCE 2 (residues 1 to 633)  
 AUTHORS Chai, I.J., Lee, B.H., Wang, W.K., Liang, C.C. and Lin, C.Y.  
 TITLE Direct Submission  
 JOURNAL Submitted (14-DEC-1998) King Car Food Industrial Co. LTD., Yuan-Shan Research Institute, 86 Chin-Hsiang Road, Yuan Shan, I-Lan 264, Taiwan, R.O.C.  
 COMMENT Method: conceptual translation supplied by author.  
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 /db\_xref="taxon:86001"  
 /tissue\_type="petal"  
 Protein 1..633  
 /product="putative ethylene response sensor"  
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 CDS 1..633  
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## ORIGIN

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121 flrnkaeeld kemglirtqe etgrhvrmlt heirstldrh tilrttlvel grtldlaeca
181 lwmpsrtgln lqlshtlnnq ipvgsvvsin lpvvnqvfnv sravriphtc qlarfqphtg
241 ryvppevvav rvpllhlsnf qindwpelsa knfavmvlml psdsarkwhv yelevelvevva
301 dqvavalsha aileesmrar dqlmdqnvat dlarreaema irarndflav mnhemrtpmh
361 aiaalsslll eteltpeqrl mvetilkssn llatlindvl dlskledgsf elevtvfnlh
421 tvfrevvnli kpiaavkkls livslspdlp scavgdekrl mqtmlnvvgv avkftkegsi
481 sitasiakpd slrdprdpf ypipsgghfy lrvqikdtgc gispqelphl ftkfahaqng
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601 ppiragqsea dafgskrmpt dliplknryq rsl

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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
Search	Protein	for		Go	Clear		
Limits	Index	History	Clipboard				
Display	Default View	as	HTML	Save	Add to Clipboard		

☐ 1: BAA85819 **ethylene receptor** BLink, PubMed, Related Sequences, Nucleotide, Taxonomy  
**CS-ETR2**  
**[Cucumis**  
**sativus]**

LOCUS BAA85819 767 aa PLN 30-MAY-2000  
 DEFINITION ethylene receptor CS-ETR2 [Cucumis sativus].  
 ACCESSION BAA85819  
 PID g6136818  
 VERSION BAA85819.1 GI:6136818  
 DBSOURCE locus AB026500 accession AB026500.1  
 KEYWORDS .  
 SOURCE cucumber.  
 ORGANISM Cucumis sativus  
 Eukaryota; Viridiplantae; Embryophyta; Tracheophyta; Spermatophyta;  
 Magnoliophyta; eudicotyledons; Rosidae; eurosids I; Cucurbitales;  
 Cucurbitaceae; Cucumis.  
 REFERENCE 1 (sites)  
 AUTHORS Yamasaki,S., Fujii,N. and Takahashi,H.  
 TITLE The ethylene-regulated expression of CS-ETR2 and CS-ERS genes in  
 cucumber plants and their possible involvement with sex expression  
 in flowers  
 JOURNAL Plant Cell Physiol. 41 (5), 608-616 (2000)  
 MEDLINE 20383769  
 REFERENCE 2 (residues 1 to 767)  
 AUTHORS Yamasaki,S., Fujii,N. and Takahashi,H.  
 TITLE Direct Submission  
 JOURNAL Submitted (21-APR-1999) Seiji Yamasaki, Institute of Genetic  
 Ecology, Tohoku University; Katahira 2-1-1 Aoba-ku, Sendai, Miyagi  
 980-8577, Japan (E-mail:yamasaki@bansui.ige.tohoku.ac.jp,  
 Tel:81-22-217-5715(ex.5715), Fax:81-22-263-9845)  
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 121 vscataitli tliplllkvk vrefmlkekt wdlgrevgmi lkqkeaglhv rmltqeirks  
 181 ldrhtilytt mfelsetlgl hycavwmpne sktlmnlthe lkdrsfsgny nvfipisdsd  
 241 vikikgsdgv nvlgpnsalv vancgesder gpaaairmpm lrvsnfkgtt peivptyyai  
 301 lvlvlpqgqp rswnnqelei ikvvadqvav alshaallee sqlmrklake qnrldqqake  
 361 nalmassqarn sfqkvmsdgm rrpmsimlgl lsmlqnenmn ddqriildam vrtgnvvstq  
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PubMed	Nucleotide	Protein	Genome	Structure	PopSet	Taxonomy	OMIM
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☐ 1: P47924 **GTP CYCLOHYDROLASE II** BLink, PubMed, Related Sequences, Taxonomy

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 annotation updated: May 30, 2000.  
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 ORGANISM Arabidopsis thaliana  
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 Magnoliophyta; eudicotyledons; Rosidae; eurosids II; Brassicales;  
 Brassicaceae; Arabidopsis.  
 REFERENCE 1 (residues 1 to 245)  
 AUTHORS Kobayashi,M., Sugiyama,M. and Yamamoto,K.  
 TITLE Isolation of cDNAs encoding GTP cyclohydrolase II from Arabidopsis  
 thaliana  
 JOURNAL Gene 160 (2), 303-304 (1995)  
 MEDLINE 95369709  
 REMARK SEQUENCE FROM N.A.

COMMENT  
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 This SWISS-PROT entry is copyright. It is produced through a  
 collaboration between the Swiss Institute of Bioinformatics and  
 the EMBL outstation - the European Bioinformatics Institute.  
 The original entry is available from <http://www.expasy.ch/sprot>  
 and <http://www.ebi.ac.uk/sprot>  
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[CATALYTIC ACTIVITY] GTP + 3 H(2)O = FORMATE +  
 2,5-DIAMINO-6-HYDROXY-4-(5-PHOSPHORIBOSYLAMINO)PYRIMIDINE +  
 PYROPHOSPHATE.

[PATHWAY] RIBOFLAVIN BIOSYNTHESIS.

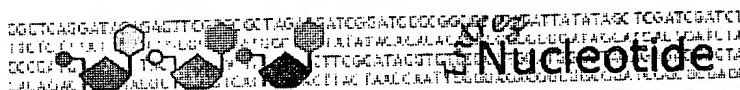
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[Genome](#)
[Structure](#)
[PopSet](#)
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[OMIM](#)

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☐ 1: [U92650](#) *Arabidopsis thaliana* MRP-like PubMed, Protein, Related Sequences, Taxonomy  
ABC transporter mRNA,  
complete cds

LOCUS ATU92650 4809 bp mRNA PLN 09-AUG-1997  
DEFINITION Arabidopsis thaliana MRP-like ABC transporter mRNA, complete cds.  
ACCESSION U92650  
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SOURCE thale cress.  
ORGANISM Arabidopsis thaliana  
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Magnoliophyta; eudicotyledons; core eudicots; Rosidae; eurosids II;  
Brassicales; Brassicaceae; Arabidopsis.  
REFERENCE 1 (bases 1 to 4809)  
AUTHORS Tommasini, R., Vogt, E., Schmid, J., Fromentau, M., Amrhein, N. and  
Martinoia, E.  
TITLE Differential expression of genes coding for ABC transporters after  
treatment of Arabidopsis thaliana with xenobiotics  
JOURNAL FEBS Lett. 411 (2-3), 206-210 (1997)  
MEDLINE 97415407  
REFERENCE 2 (bases 1 to 4809)  
AUTHORS Tommasini, R., Vogt, E., Schmid, J., Fromentau, M., Amrhein, N. and  
Martinoia, E.  
TITLE Direct Submission  
JOURNAL Submitted (10-MAR-1997) Institut fuer Pflanzenwissenschaften, ETH  
Zuerich, Universitaetstrasse 2, Zuerich 8092, Switzerland  
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